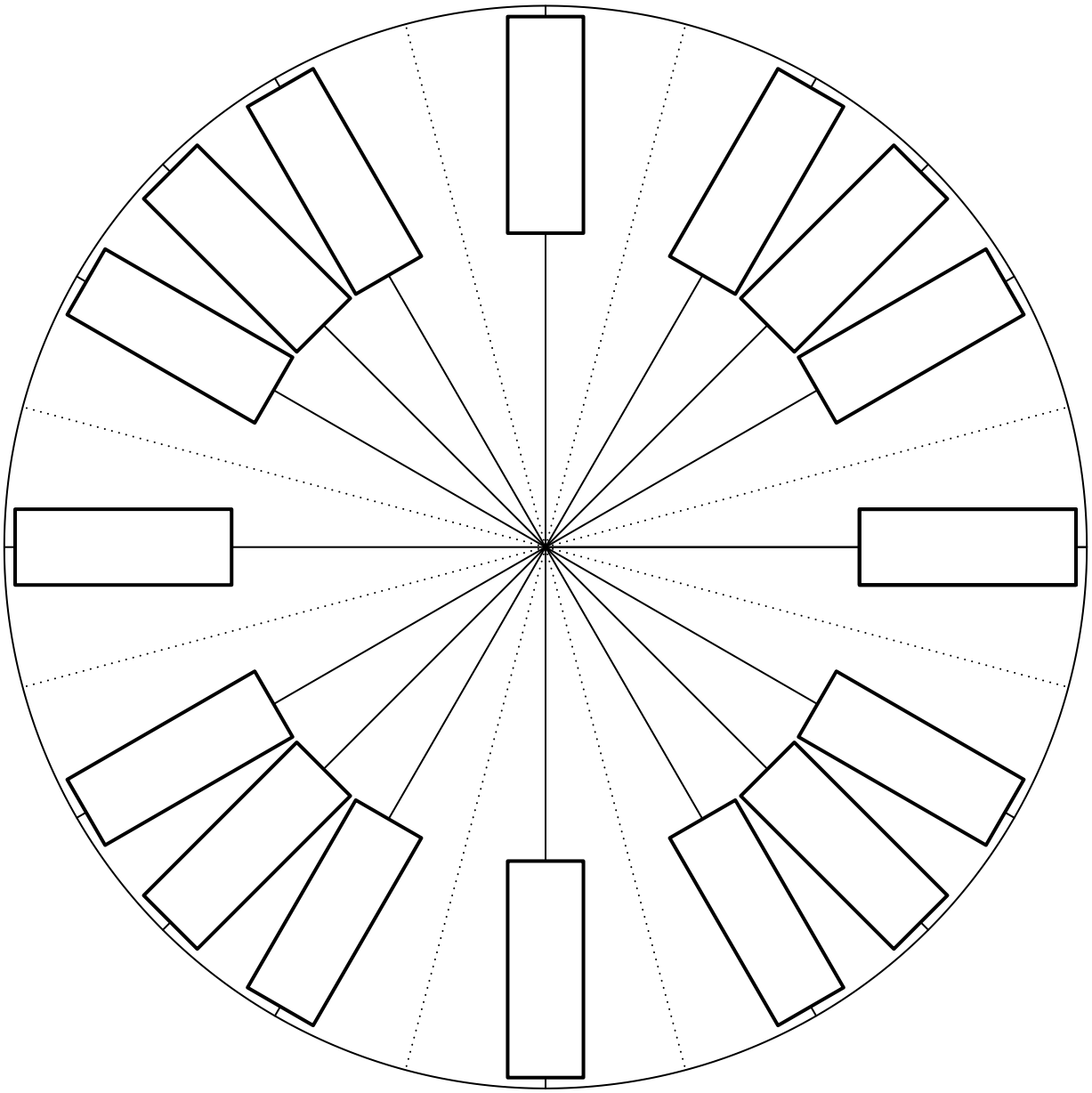
Name: Date:

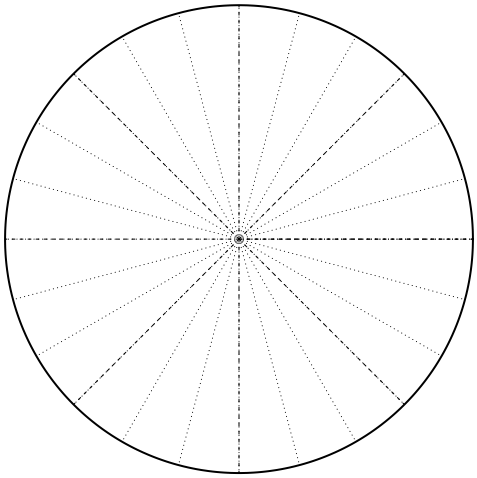
u12 Radians, Degrees, and Arc Length Practice (version 11)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

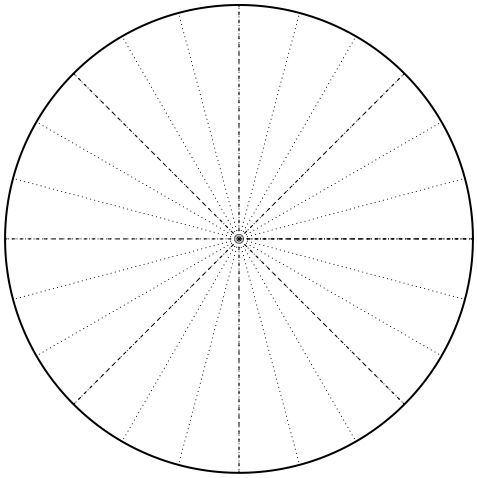


u12 Radians, Degrees, and Arc Length Practice (version 11)

2. On the circle below, draw a sketch of a **765º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{-13\pi}{6}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

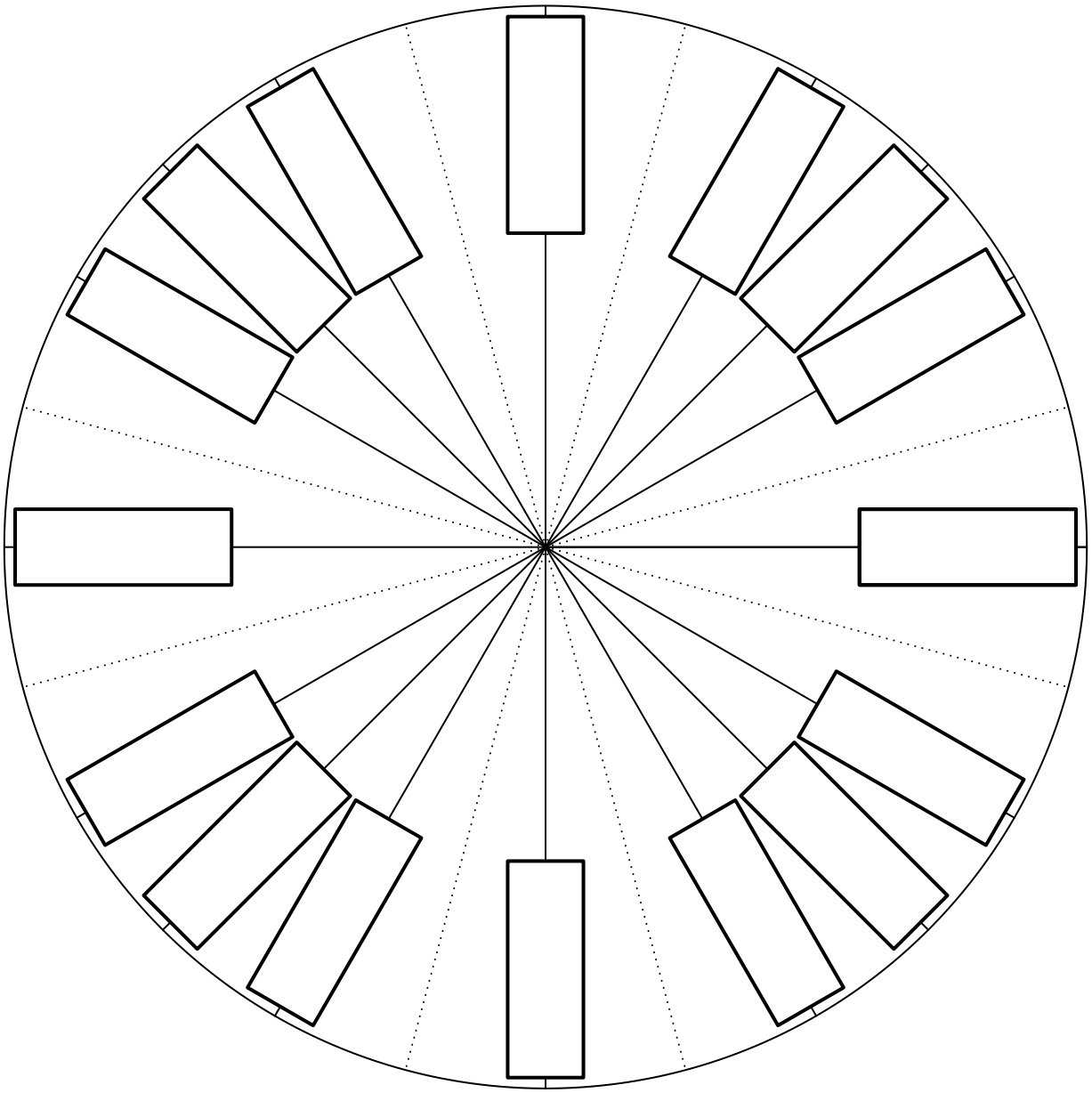


4. A circle is drawn with a central angle of 3 radians. The radius is r meters and the subtended arc length is 15 meters. Find r.

Name: Date:

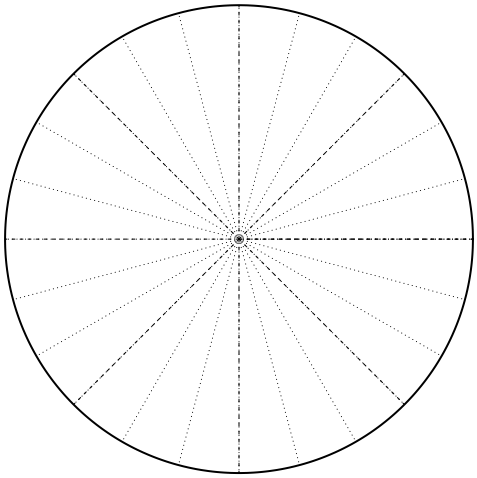
u12 Radians, Degrees, and Arc Length Practice (version 12)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

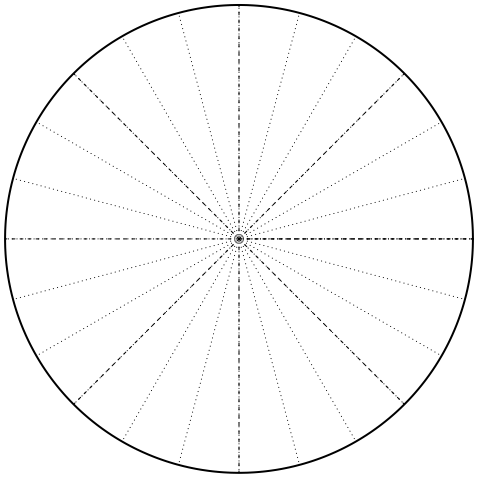


u12 Radians, Degrees, and Arc Length Practice (version 12)

2. On the circle below, draw a sketch of a **960º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{15\pi}{2}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

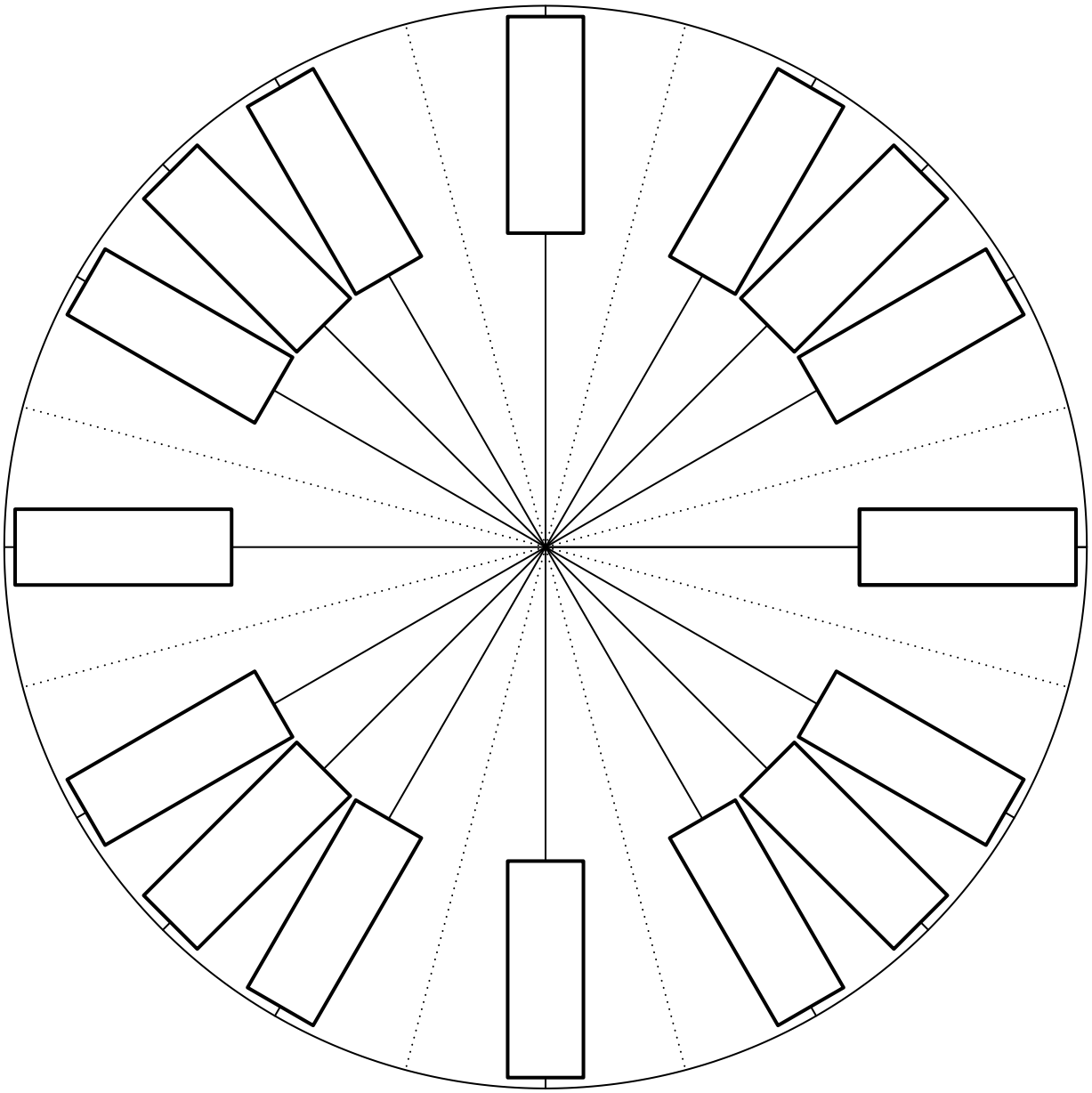


4. A circle, a central angle, and the subtended arc are drawn. The arc length is 12 meters. The central angle is θ radians. The radius is 6 meters. Find θ.

Name: Date:

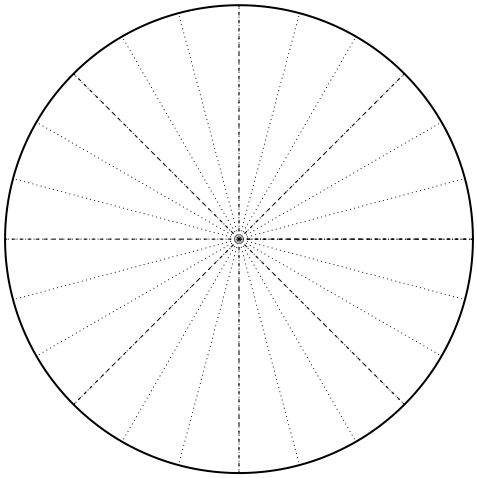
u12 Radians, Degrees, and Arc Length Practice (version 13)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

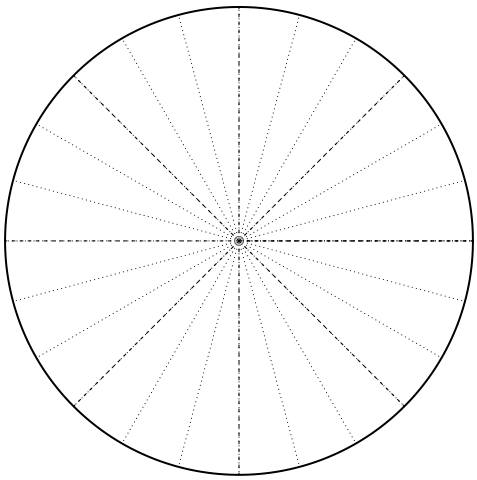


u12 Radians, Degrees, and Arc Length Practice (version 13)

2. On the circle below, draw a sketch of a **1200º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{11\pi}{4}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

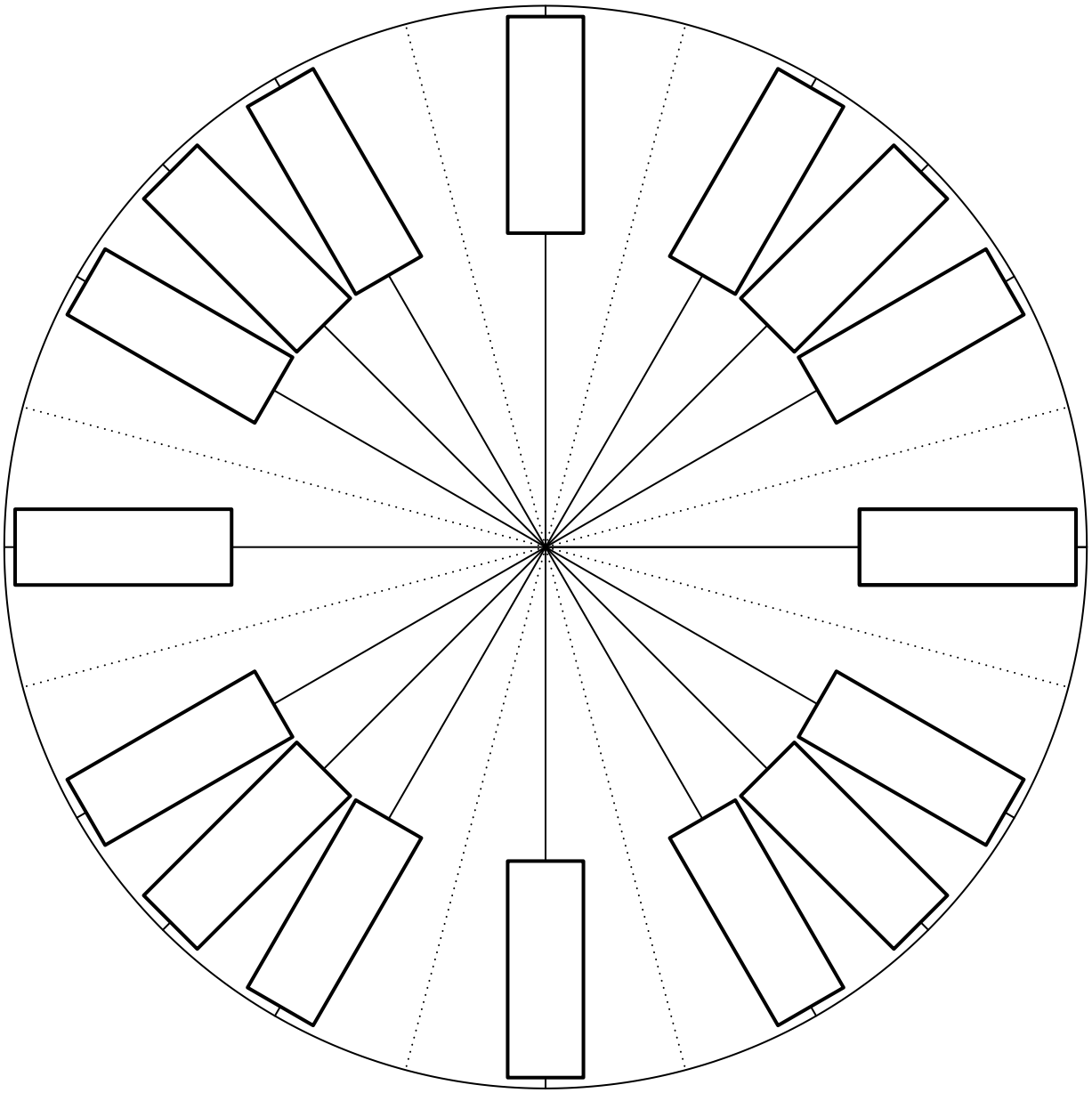


4. A circle, a central angle, and the subtended arc are drawn. The arc length is 30 meters. The central angle is 6 radians. The radius is r meters. Find r.

Name: Date:

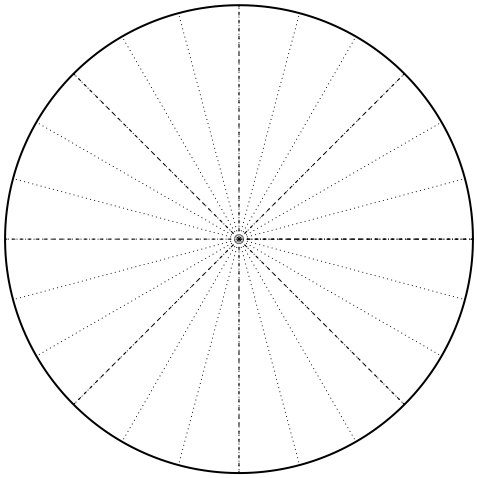
u12 Radians, Degrees, and Arc Length Practice (version 14)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

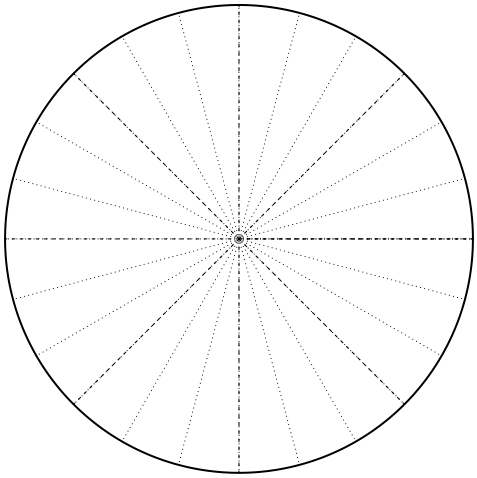


u12 Radians, Degrees, and Arc Length Practice (version 14)

2. On the circle below, draw a sketch of a **-585º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{47\pi}{6}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

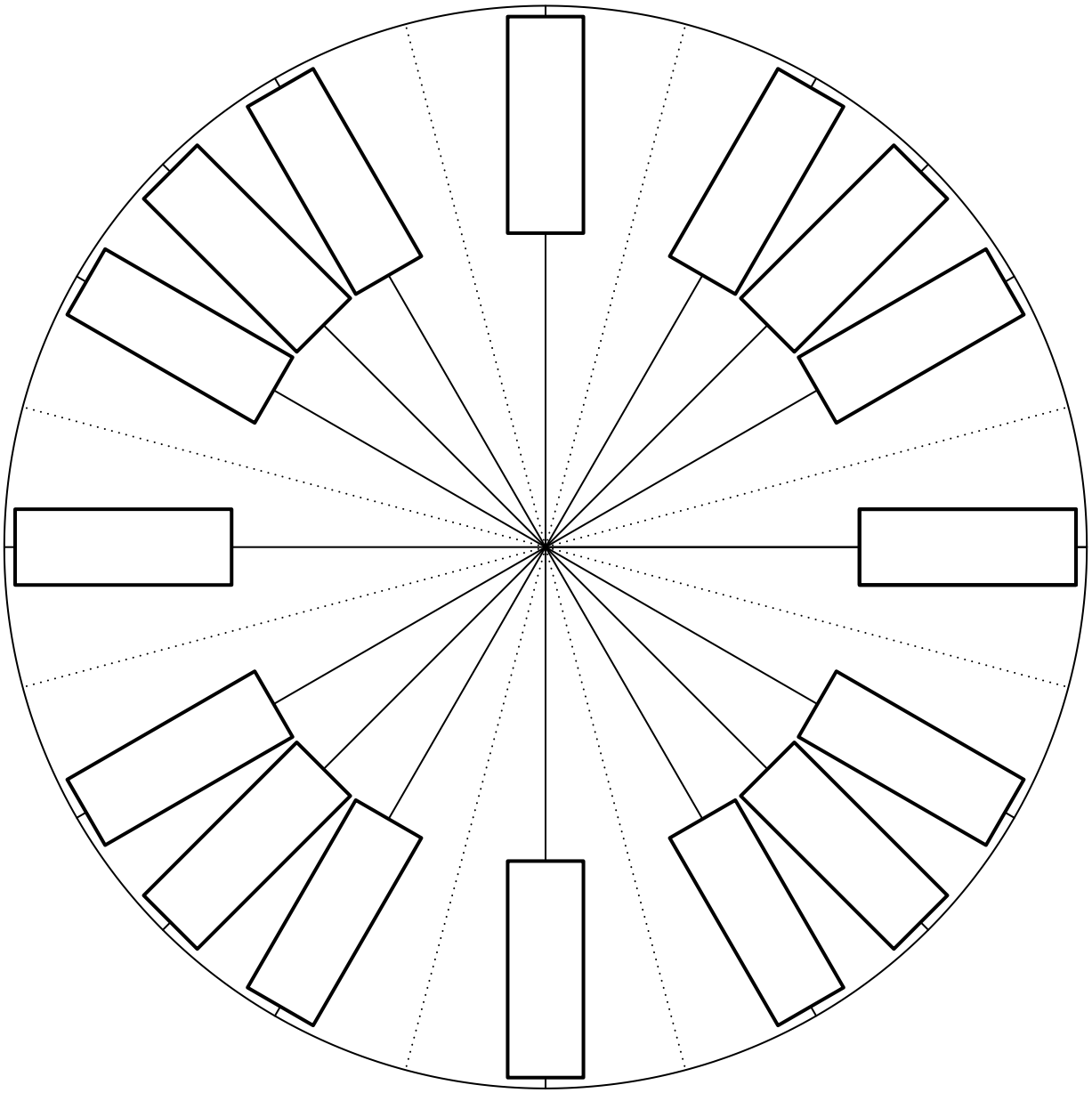


4. A circle is drawn with a radius of 5 meters. A central angle of 3 radians is drawn, subtending an arc of length L meters. Find L.

Name: Date:

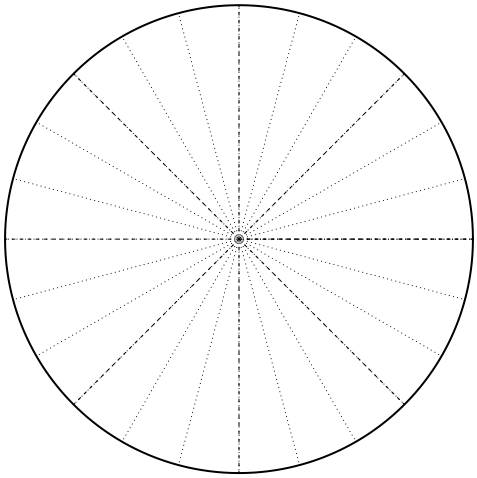
u12 Radians, Degrees, and Arc Length Practice (version 15)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

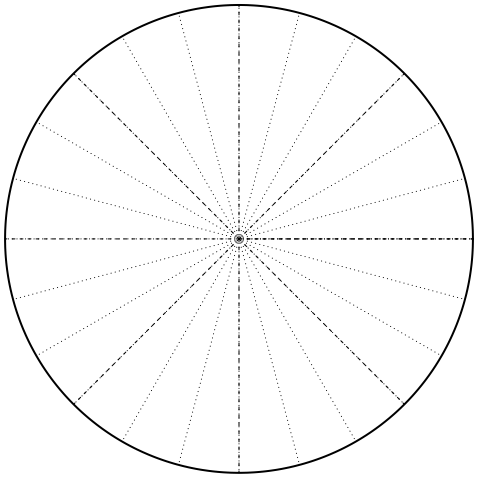


u12 Radians, Degrees, and Arc Length Practice (version 15)

2. On the circle below, draw a sketch of a **600º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{-11\pi}{4}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

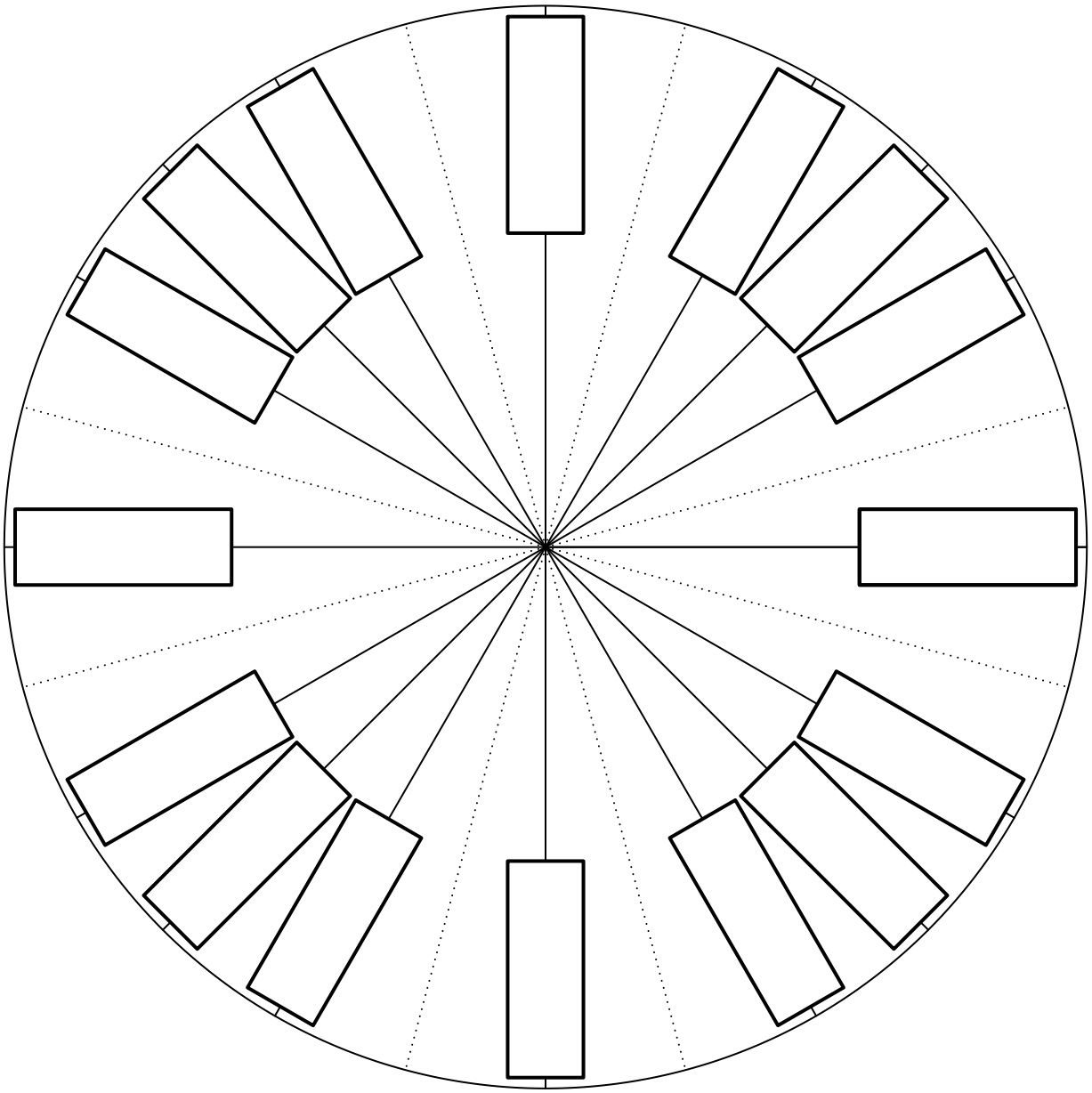


4. A circle, a central angle, and the subtended arc are drawn. The arc length is 24 meters. The central angle is 4 radians. The radius is r meters. Find r.

Name: Date:

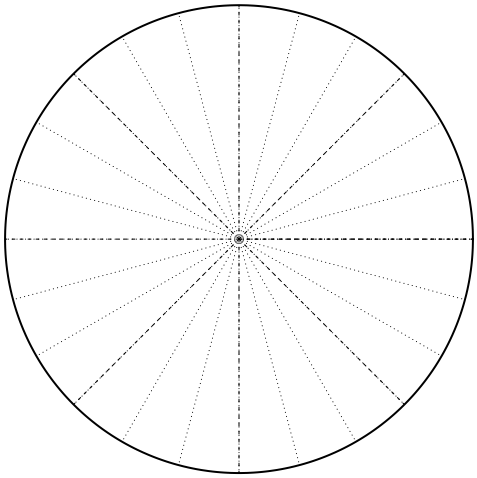
u12 Radians, Degrees, and Arc Length Practice (version 16)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

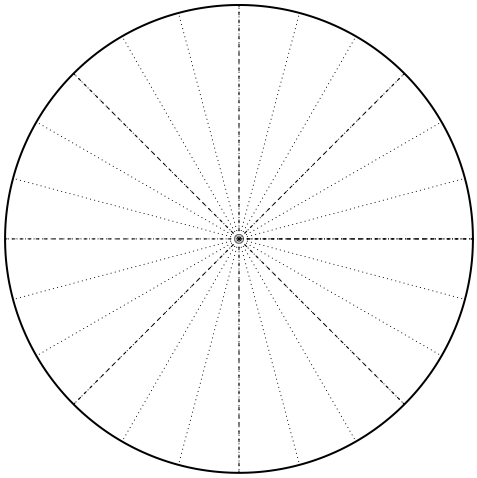


u12 Radians, Degrees, and Arc Length Practice (version 16)

2. On the circle below, draw a sketch of a **-630º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{15\pi}{2}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

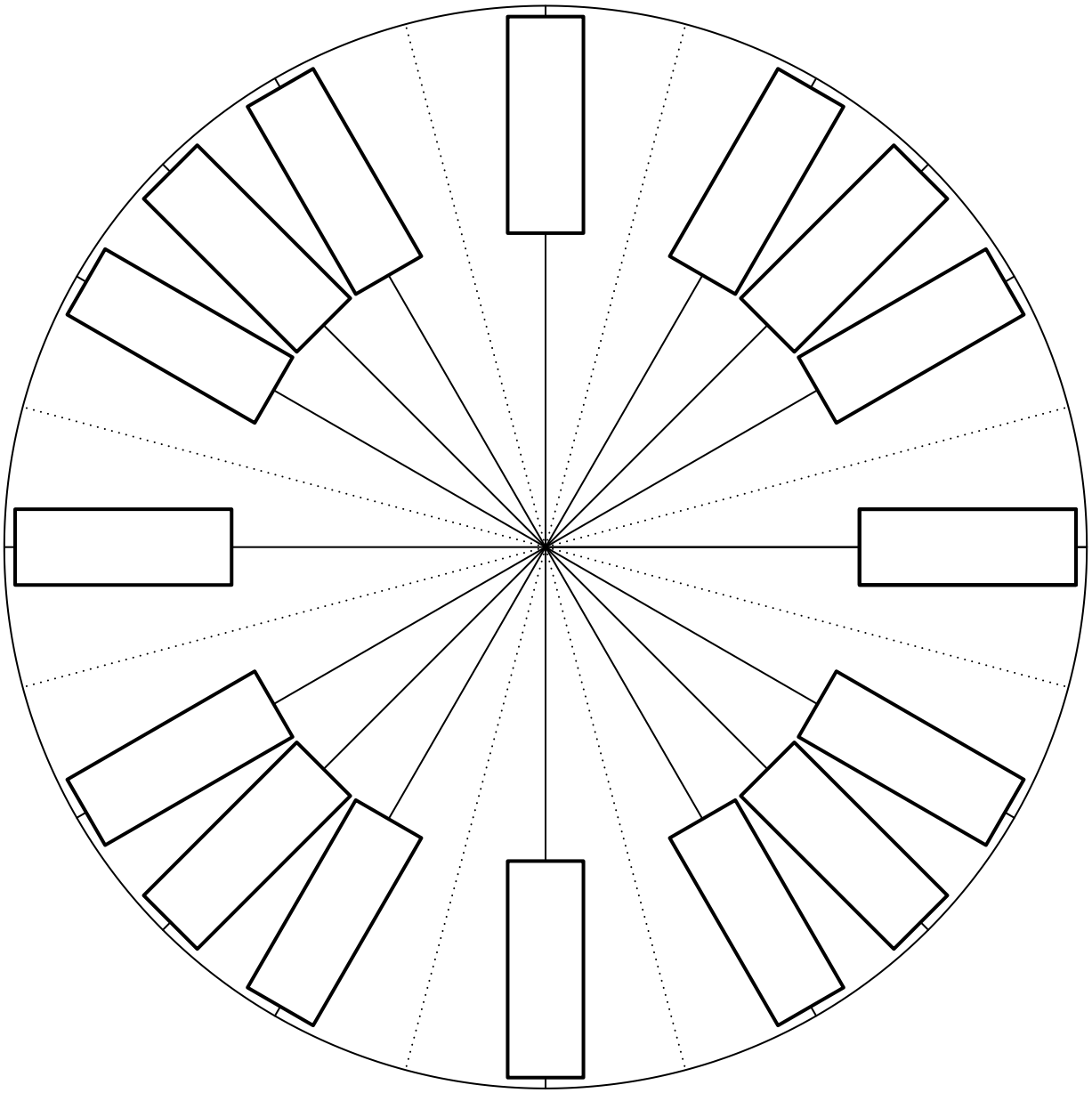


4. A circle, a central angle, and the subtended arc are drawn. The arc length is 15 meters. The central angle is θ radians. The radius is 5 meters. Find θ.

Name: Date:

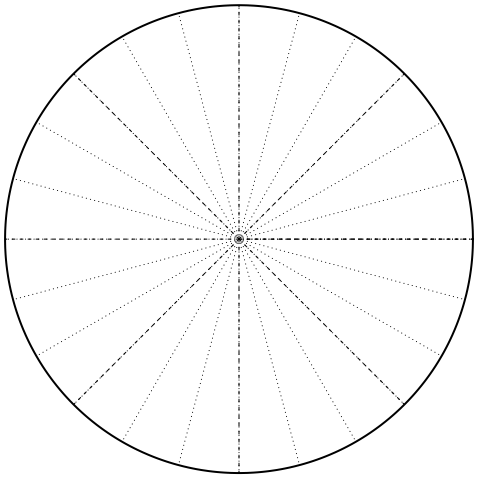
u12 Radians, Degrees, and Arc Length Practice (version 17)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

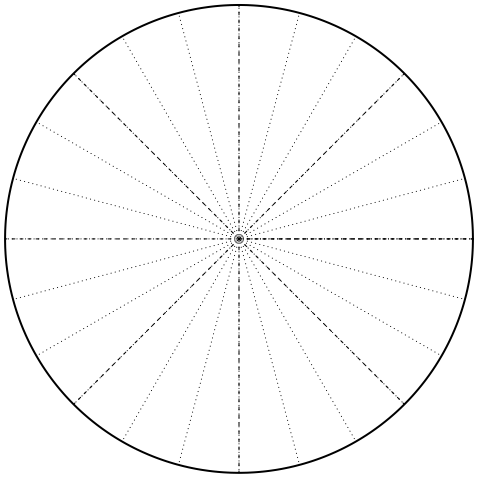


u12 Radians, Degrees, and Arc Length Practice (version 17)

2. On the circle below, draw a sketch of a **-930º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{-17\pi}{3}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

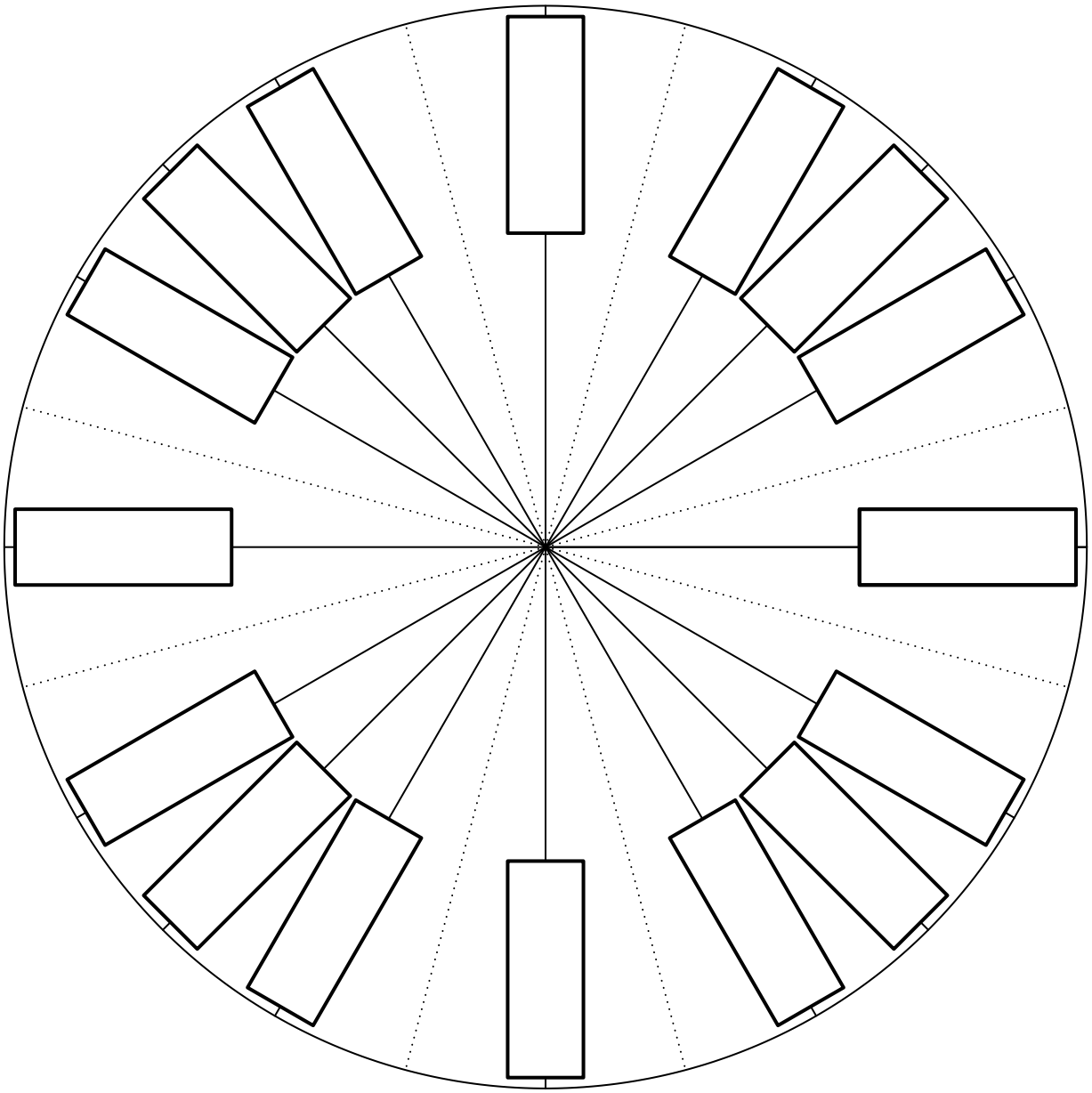


4. A circle is drawn with a central angle of θ radians. The radius is 6 meters and the subtended arc length is 24 meters. Find θ.

Name: Date:

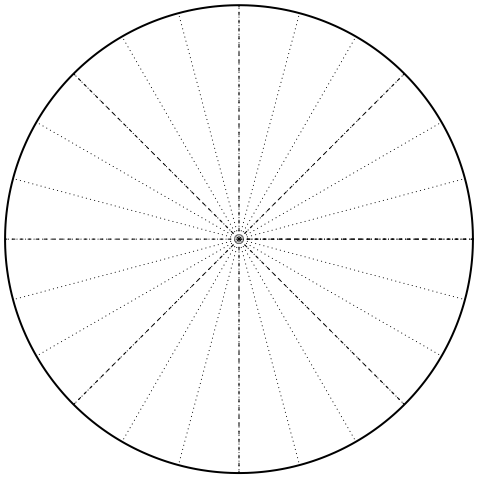
u12 Radians, Degrees, and Arc Length Practice (version 18)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

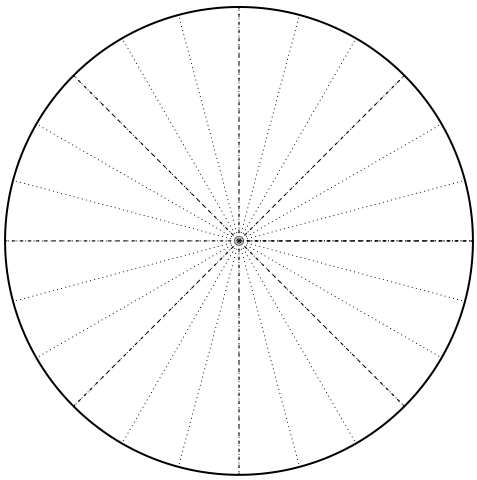


u12 Radians, Degrees, and Arc Length Practice (version 18)

2. On the circle below, draw a sketch of a **750°** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{-19\pi}{4}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

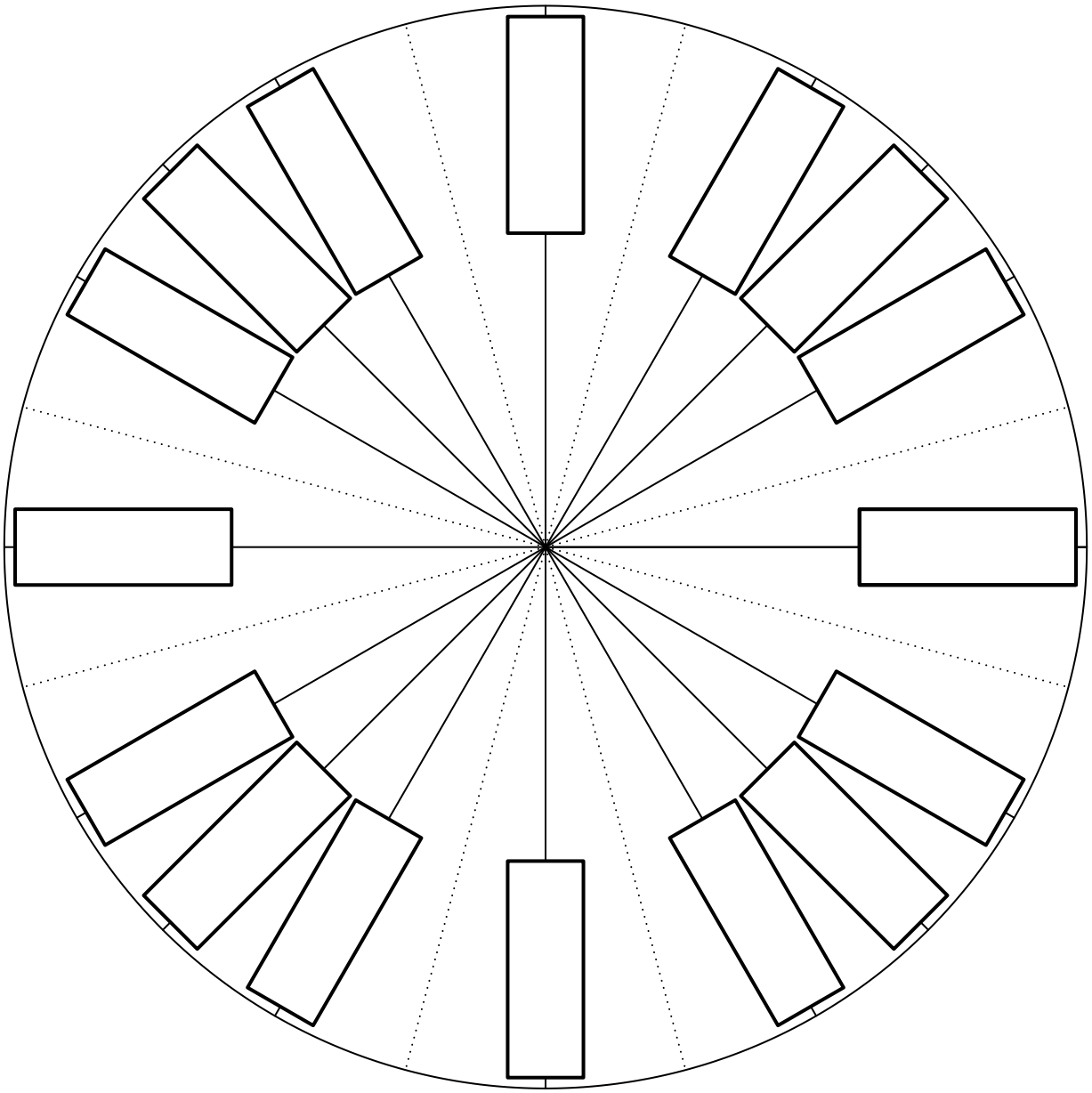


4. A circle is drawn with a central angle of 4 radians. The radius is r meters and the subtended arc length is 20 meters. Find r.

Name: Date:

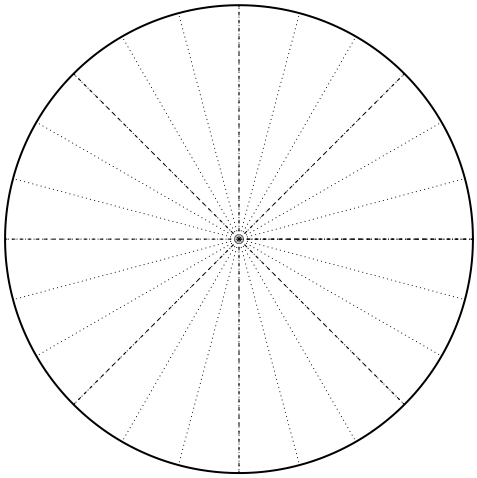
u12 Radians, Degrees, and Arc Length Practice (version 19)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

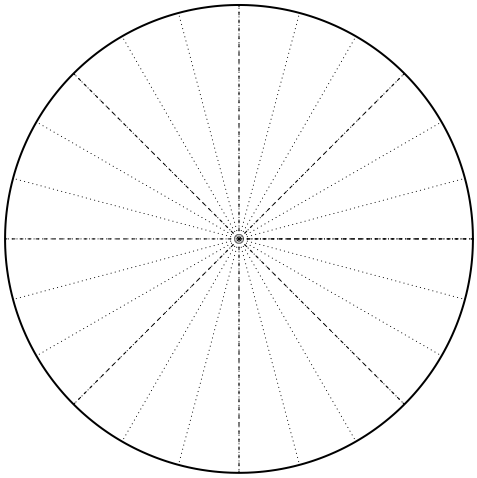


u12 Radians, Degrees, and Arc Length Practice (version 19)

2. On the circle below, draw a sketch of a $\mathbf{600^o}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\dfrac{20\pi}{3}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

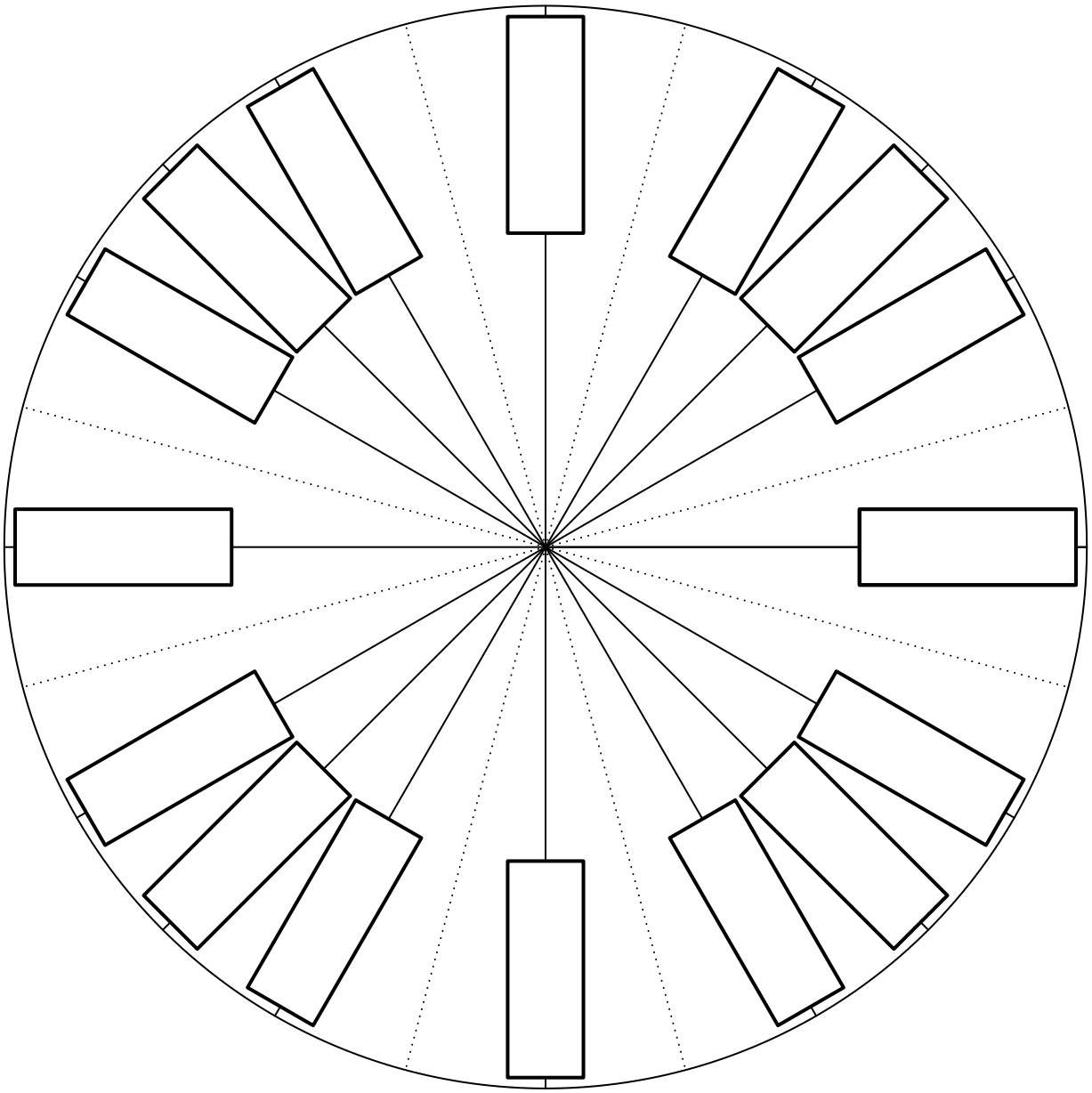


4. A circle, a central angle, and the subtended arc are drawn. The arc length is 8 meters. The central angle is 4 radians. The radius is r meters. Find r.

Name: Date:

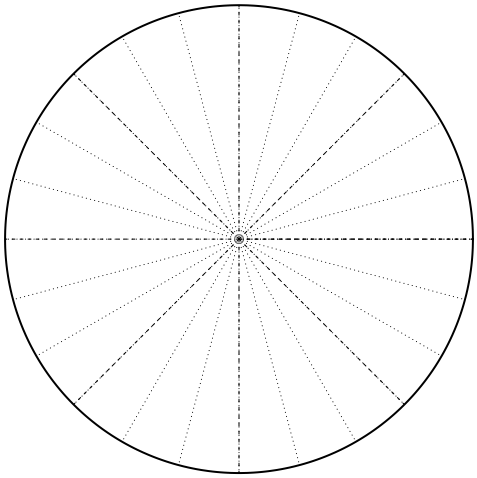
u12 Radians, Degrees, and Arc Length Practice (version 20)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

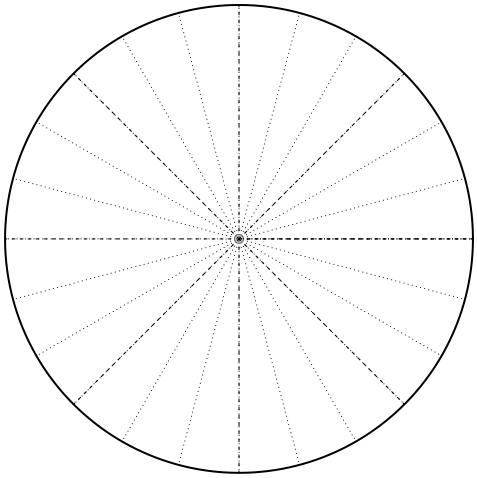


u12 Radians, Degrees, and Arc Length Practice (version 20)

2. On the circle below, draw a sketch of a **990º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{21\pi}{4}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

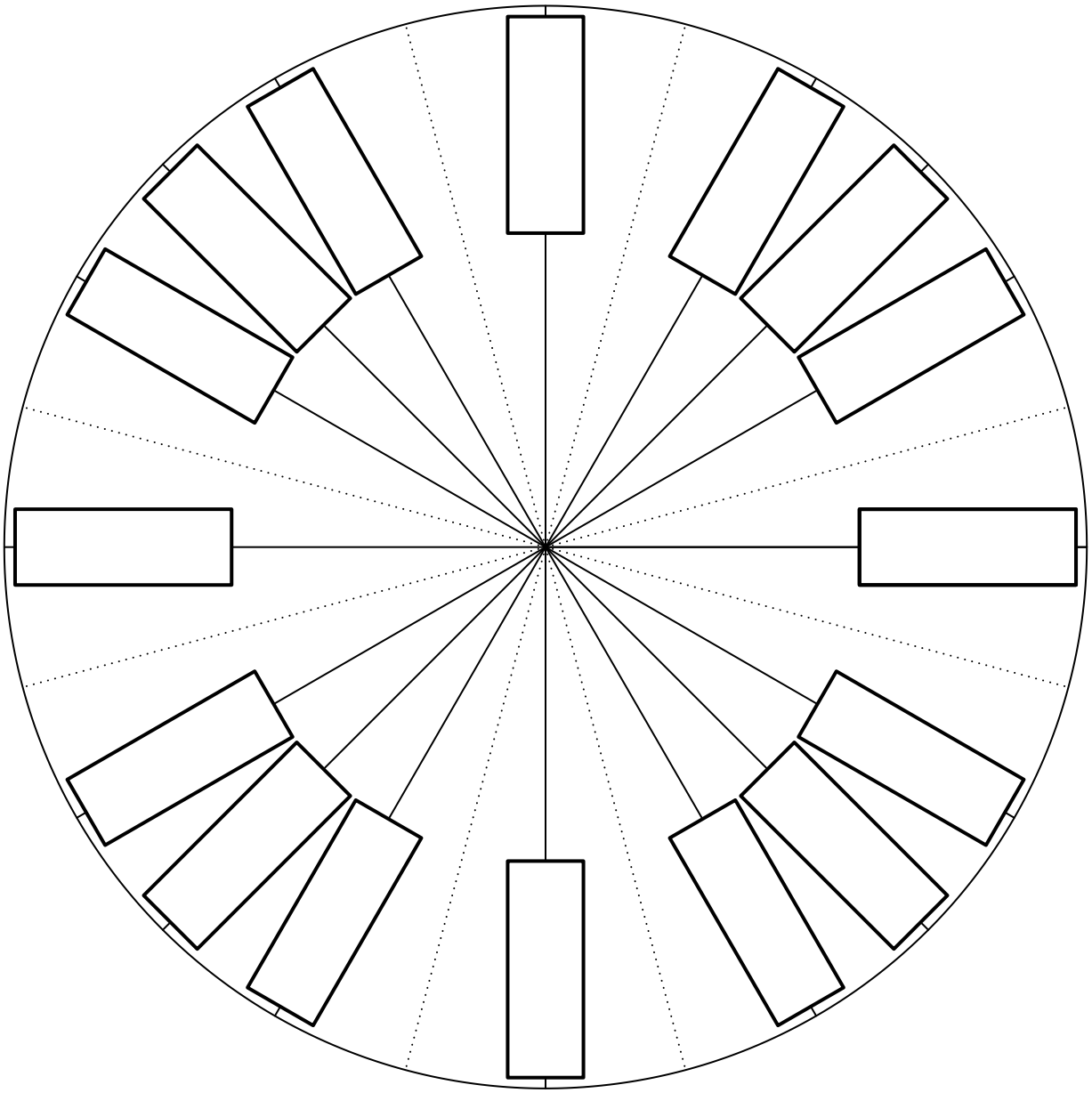


4. A circle is drawn with a radius of 6 meters. A central angle of θ radians is drawn, subtending an arc of length 18 meters. Find θ.

Name: Date:

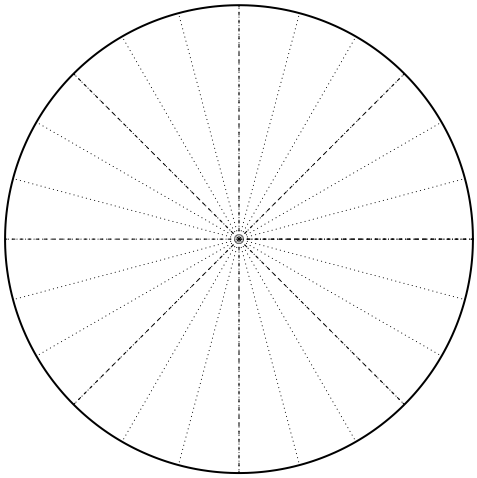
u12 Radians, Degrees, and Arc Length Practice (version 21)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

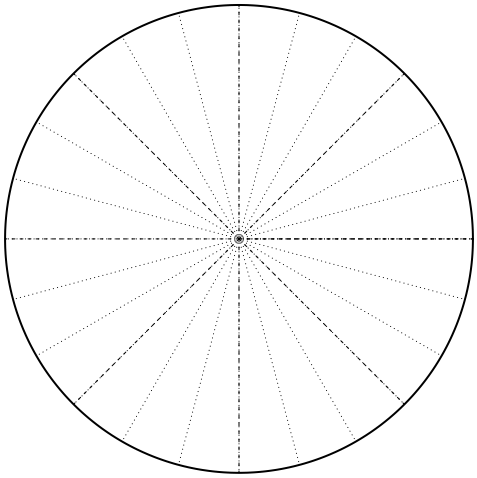


u12 Radians, Degrees, and Arc Length Practice (version 21)

2. On the circle below, draw a sketch of a **-1110º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{-10\pi}{3}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

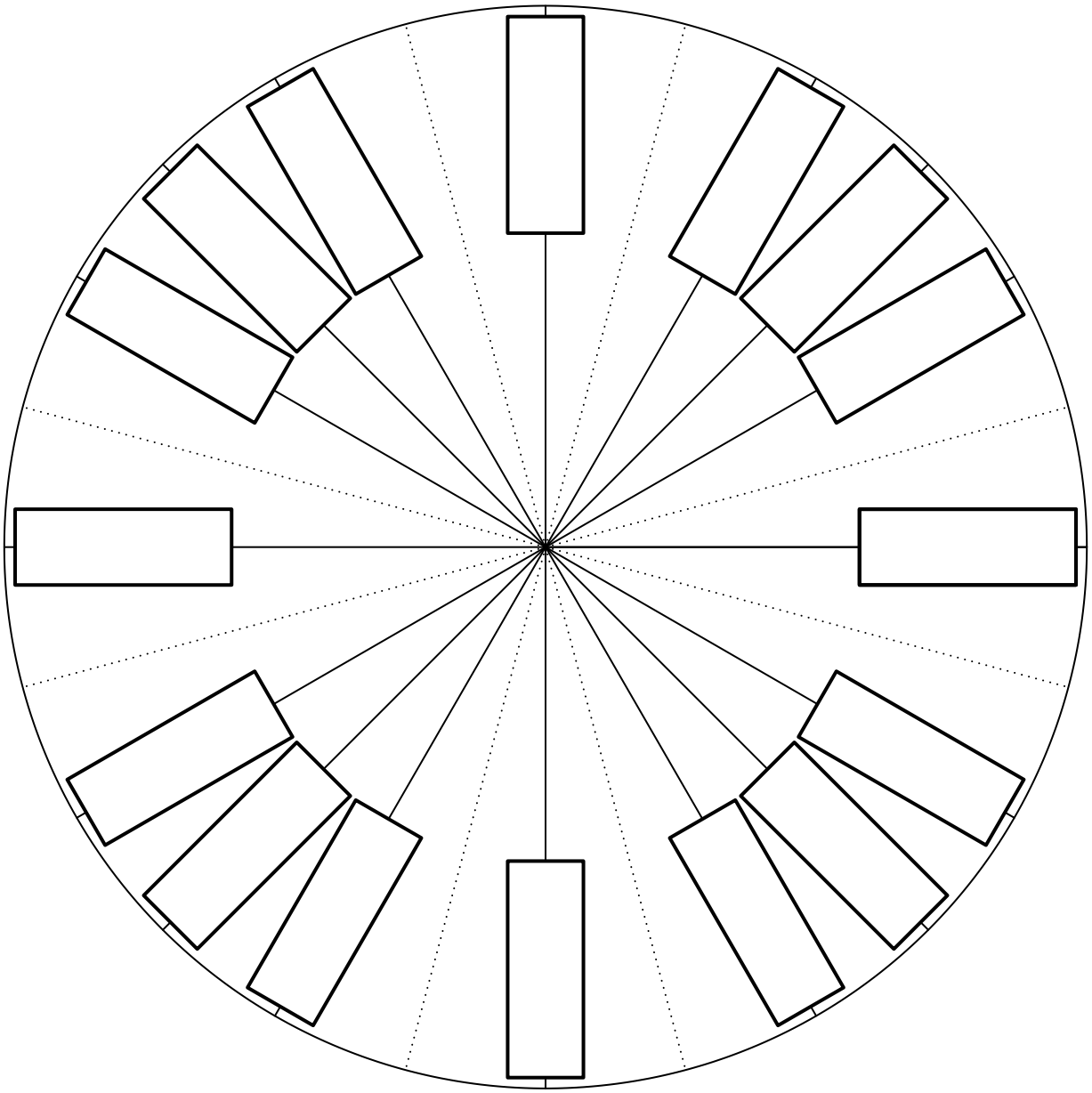


4. A circle is drawn with a central angle of 4 radians. The radius is 6 meters and the subtended arc length is L meters. Find L.

Name: Date:

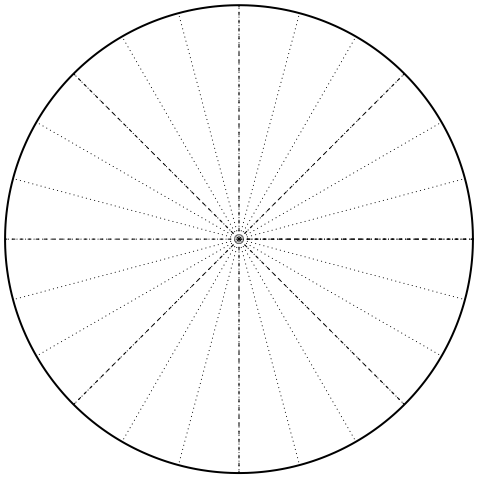
u12 Radians, Degrees, and Arc Length Practice (version 22)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

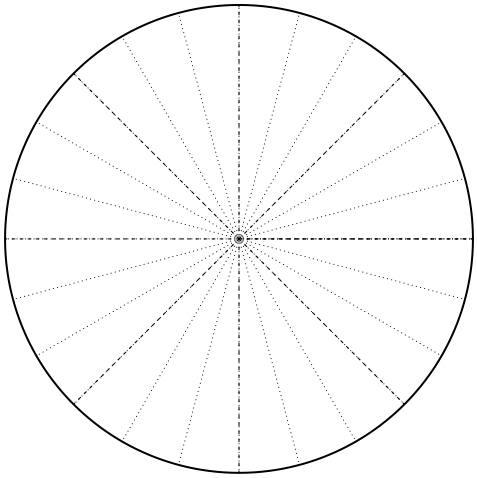


u12 Radians, Degrees, and Arc Length Practice (version 22)

2. On the circle below, draw a sketch of a **945º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{35\pi}{6}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

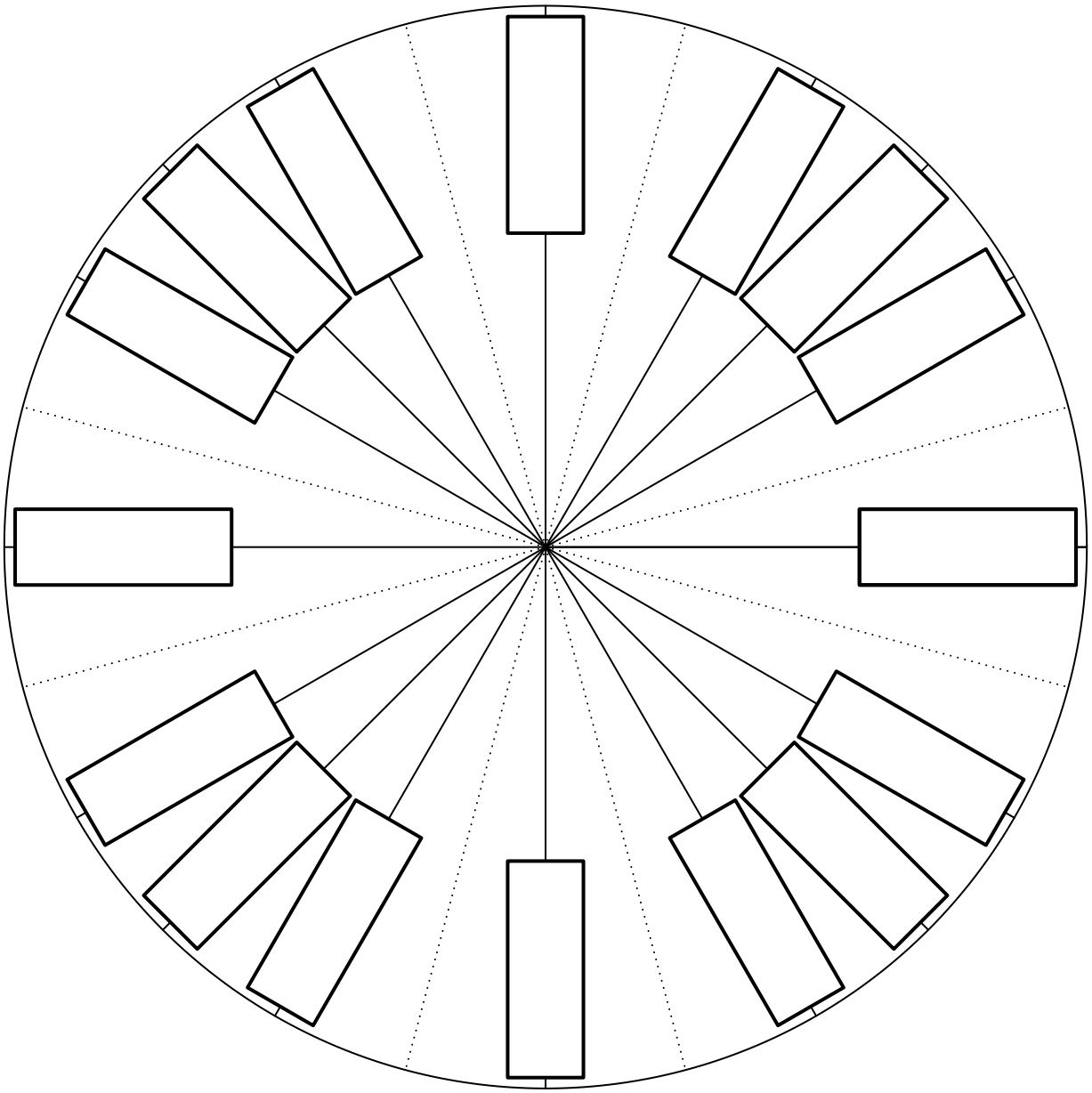


4. A circle is drawn with a radius of r meters. A central angle of 4 radians is drawn, subtending an arc of length 20 meters. Find r.

Name: Date:

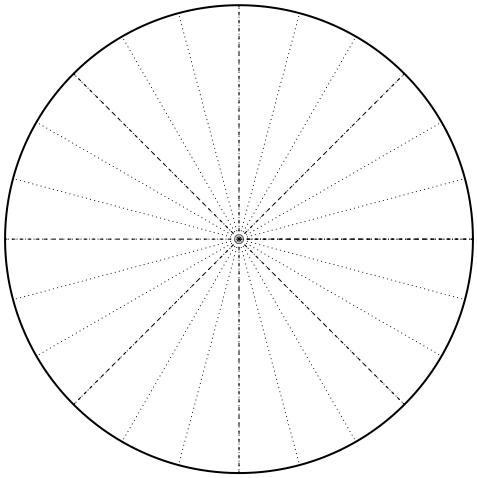
u12 Radians, Degrees, and Arc Length Practice (version 23)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

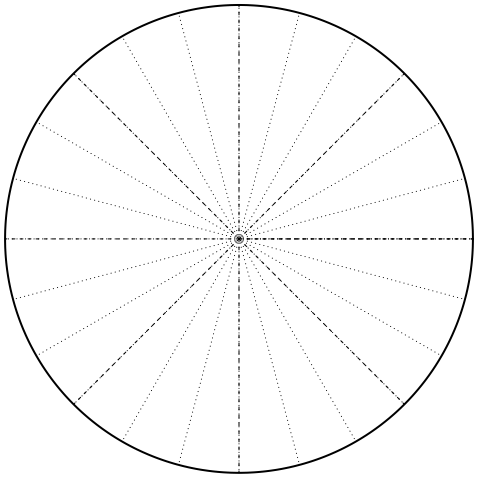


u12 Radians, Degrees, and Arc Length Practice (version 23)

2. On the circle below, draw a sketch of a **660°** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{-43\pi}{6}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

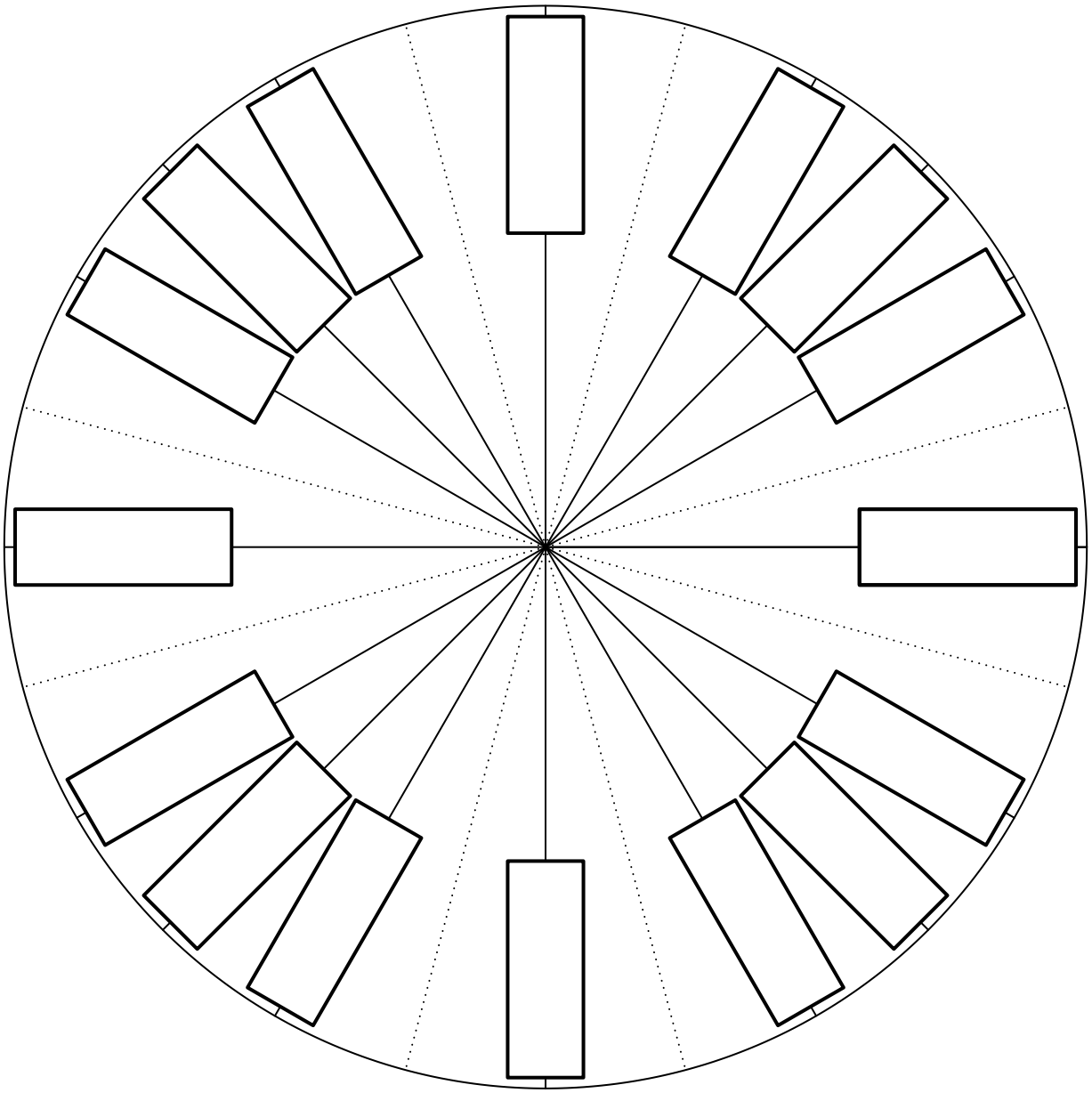


4. A circle is drawn with a central angle of 6 radians. The radius is r meters and the subtended arc length is 24 meters. Find r.

Name: Date:

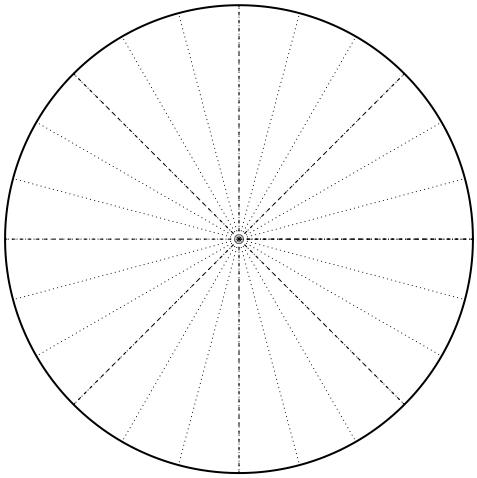
u12 Radians, Degrees, and Arc Length Practice (version 24)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

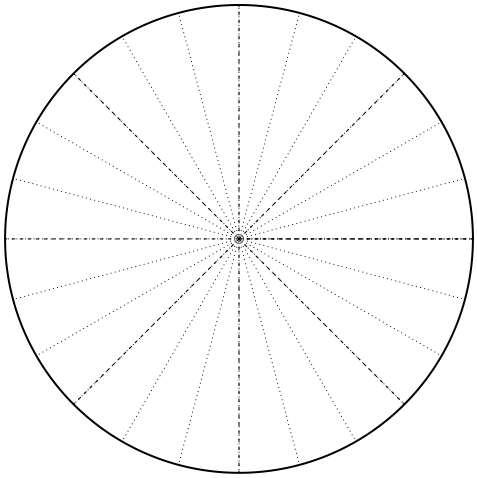


u12 Radians, Degrees, and Arc Length Practice (version 24)

2. On the circle below, draw a sketch of a **1140º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{-25\pi}{4}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

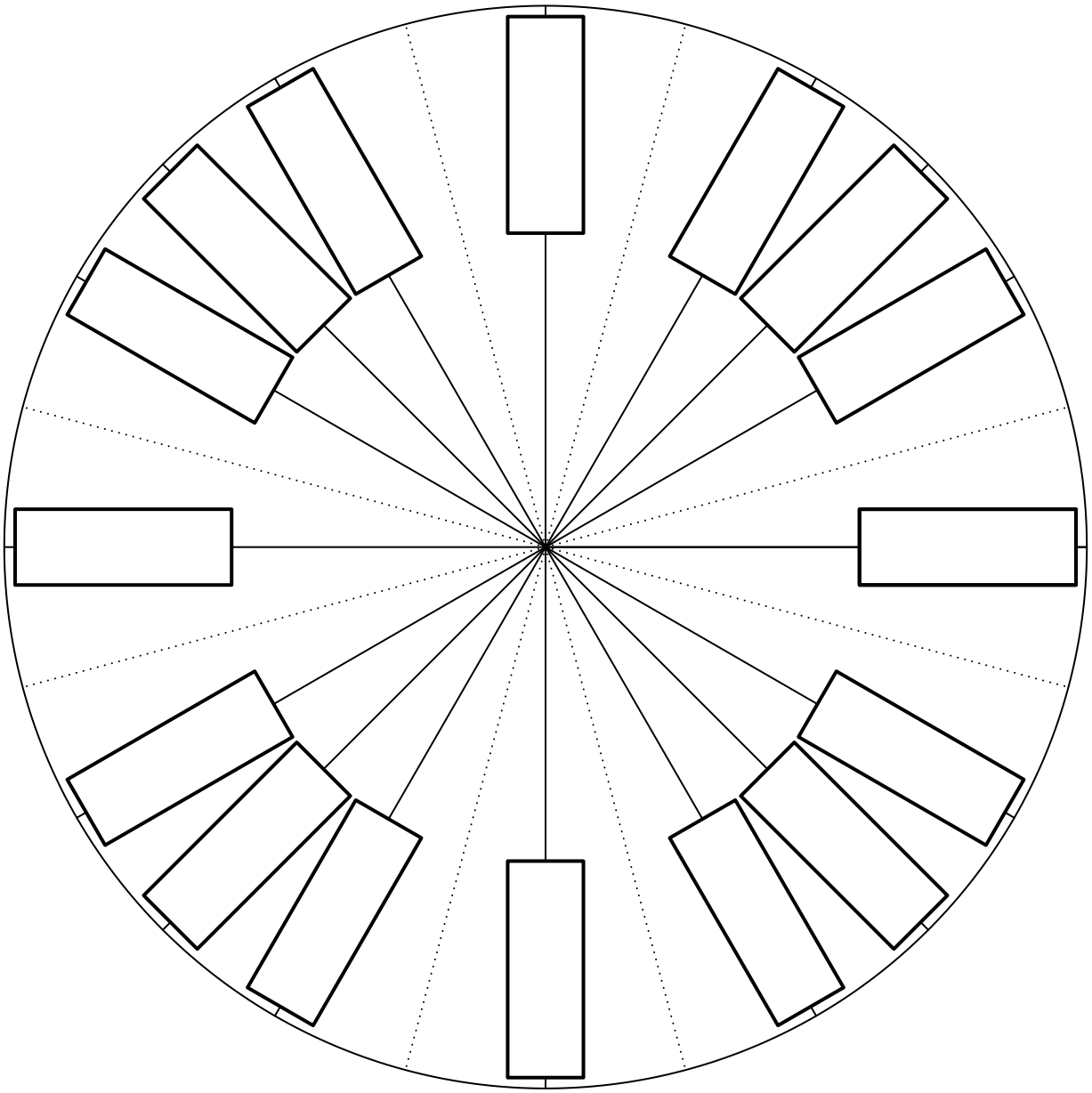


4. A circle is drawn with a central angle of θ radians. The radius is 6 meters and the subtended arc length is 18 meters. Find θ.

Name: Date:

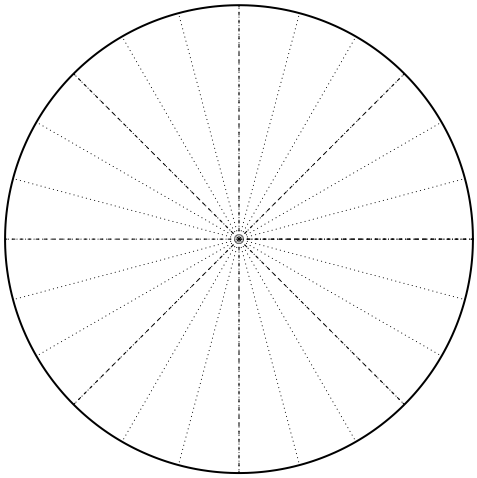
u12 Radians, Degrees, and Arc Length Practice (version 25)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

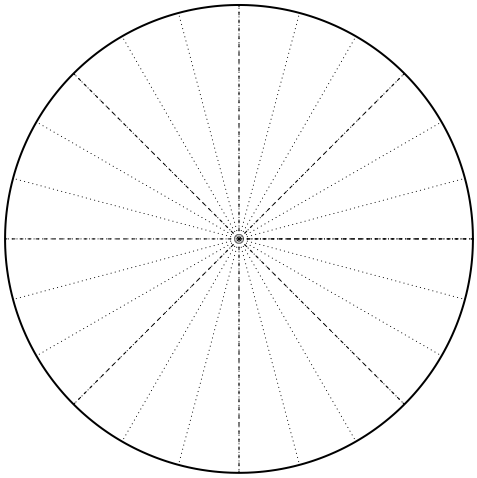


u12 Radians, Degrees, and Arc Length Practice (version 25)

2. On the circle below, draw a sketch of a **1395º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{13\pi}{6}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

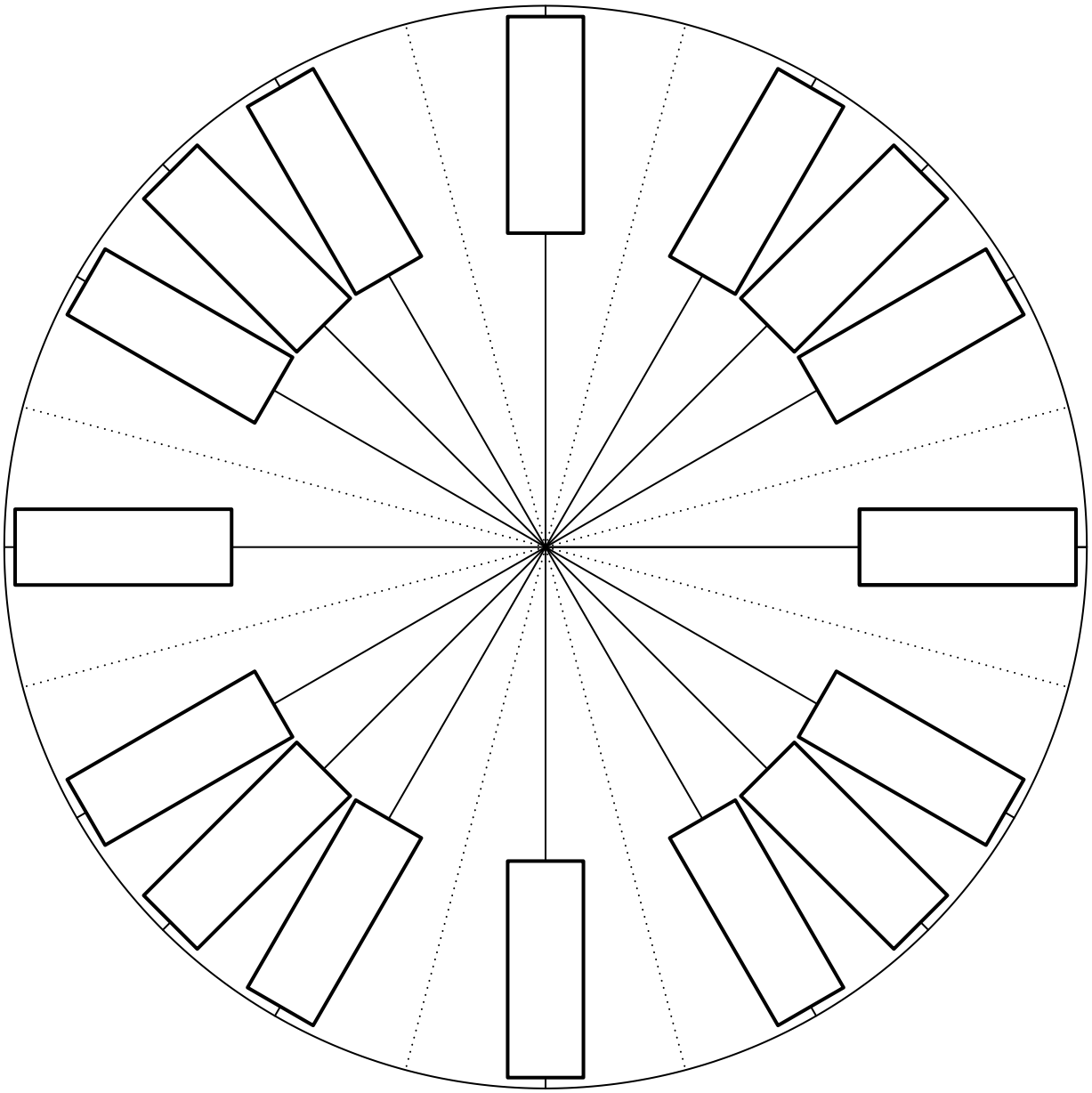


4. A circle is drawn with a central angle of 3 radians. The radius is 2 meters and the subtended arc length is L meters. Find L.

Name: Date:

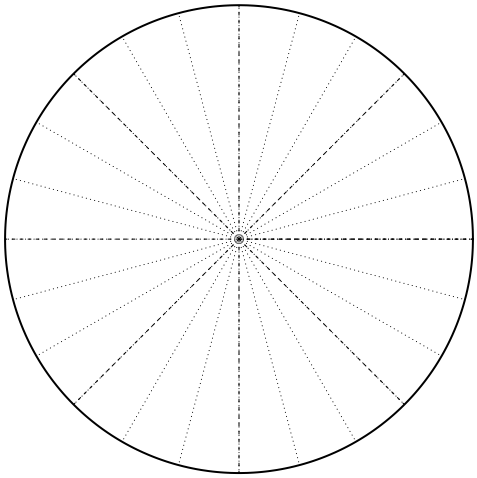
u12 Radians, Degrees, and Arc Length Practice (version 26)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

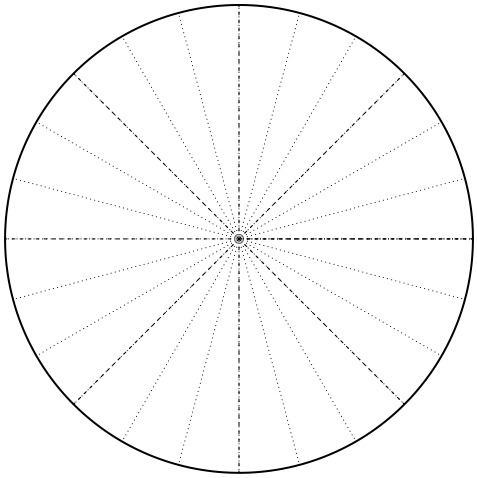


u12 Radians, Degrees, and Arc Length Practice (version 26)

2. On the circle below, draw a sketch of a **1290º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{-19\pi}{3}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

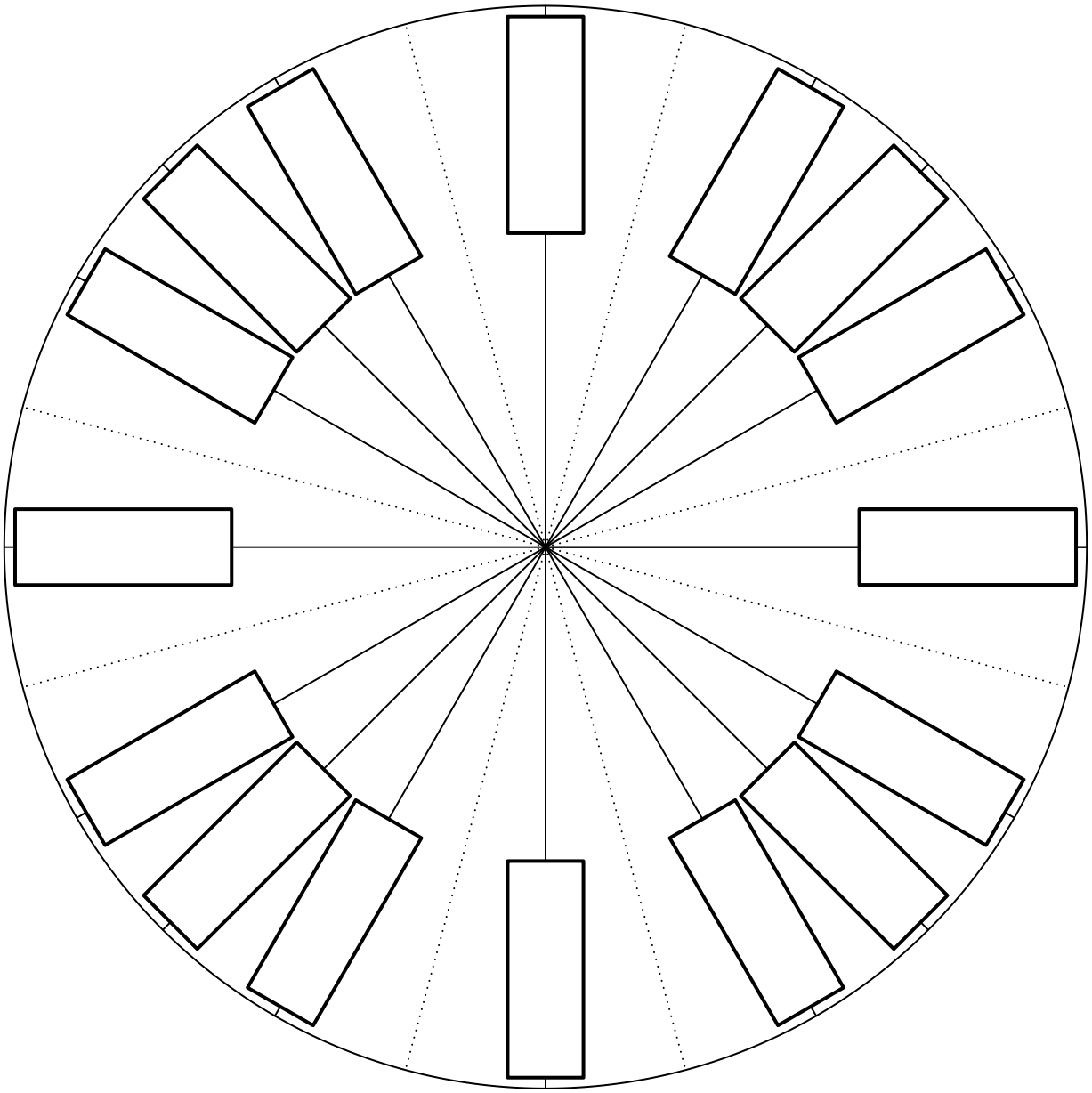


4. A circle is drawn with a central angle of θ radians. The radius is 5 meters and the subtended arc length is 15 meters. Find θ.

Name: Date:

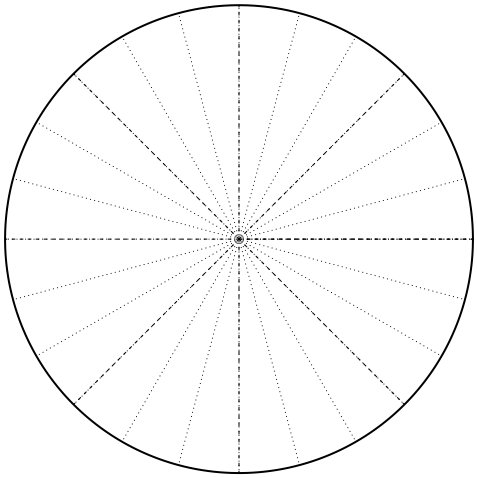
u12 Radians, Degrees, and Arc Length Practice (version 27)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

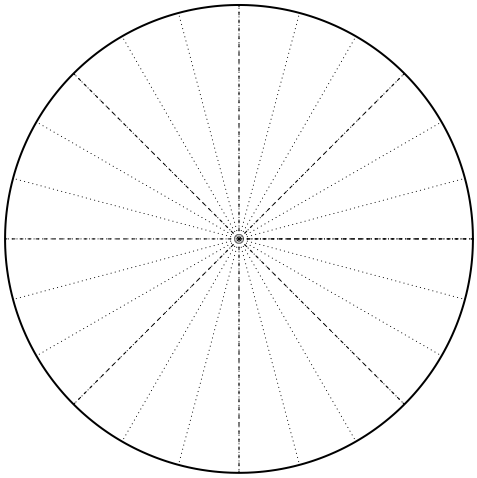


u12 Radians, Degrees, and Arc Length Practice (version 27)

2. On the circle below, draw a sketch of a **405º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{-19\pi}{6}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

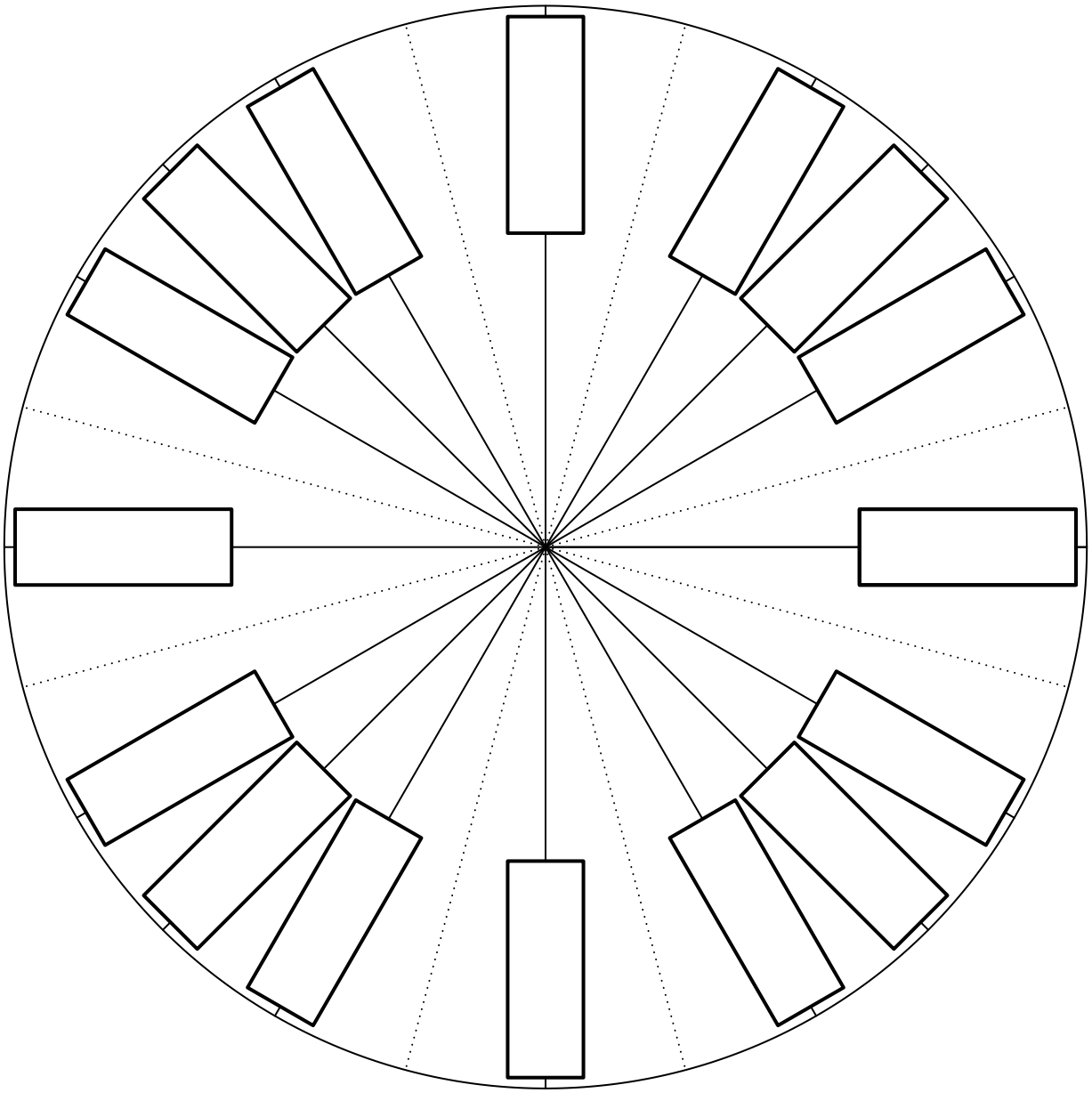


4. A circle is drawn with a radius of r meters. A central angle of 6 radians is drawn, subtending an arc of length 12 meters. Find r.

Name: Date:

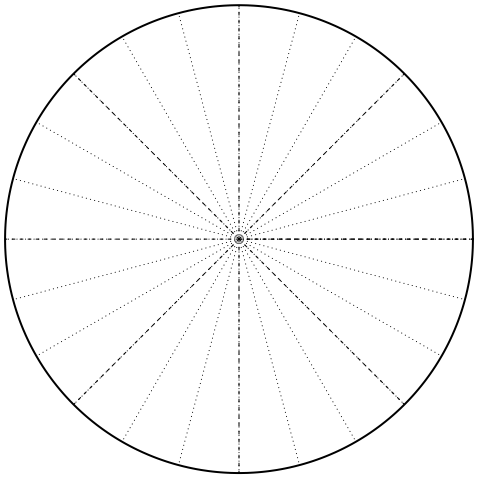
u12 Radians, Degrees, and Arc Length Practice (version 28)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

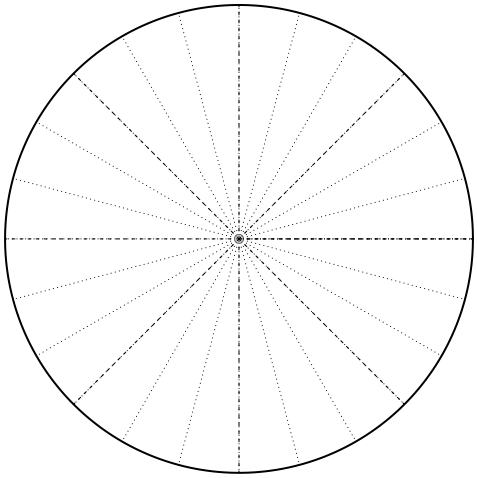


u12 Radians, Degrees, and Arc Length Practice (version 28)

2. On the circle below, draw a sketch of a **-390º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{9\pi}{4}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

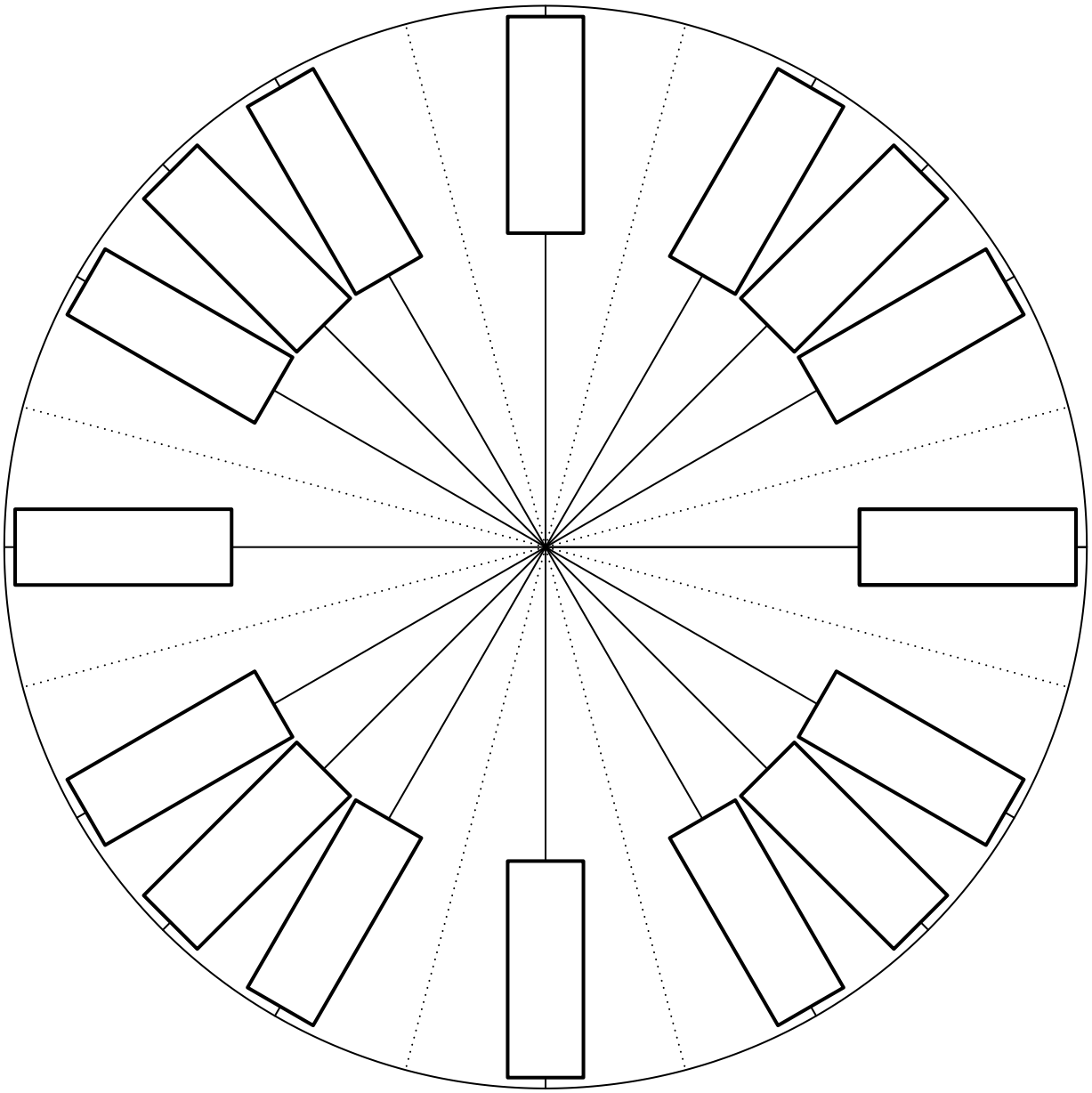


4. A circle, a central angle, and the subtended arc are drawn. The arc length is 24 meters. The central angle is 4 radians. The radius is r meters. Find r.

Name: Date:

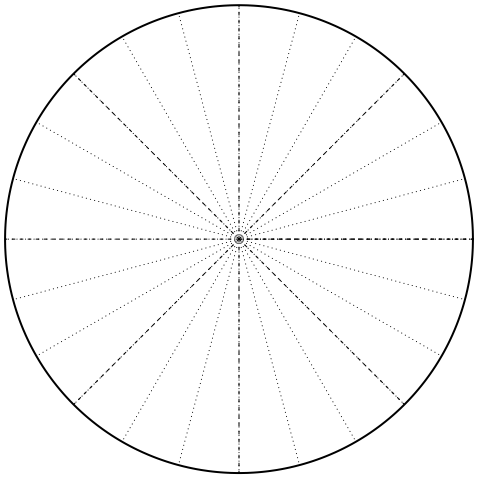
u12 Radians, Degrees, and Arc Length Practice (version 29)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

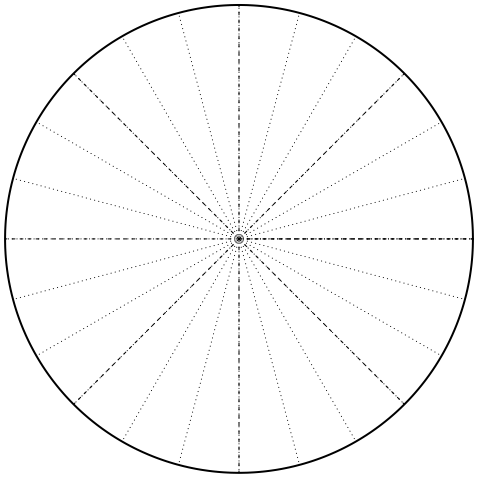


u12 Radians, Degrees, and Arc Length Practice (version 29)

2. On the circle below, draw a sketch of a **-660º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{-17\pi}{4}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

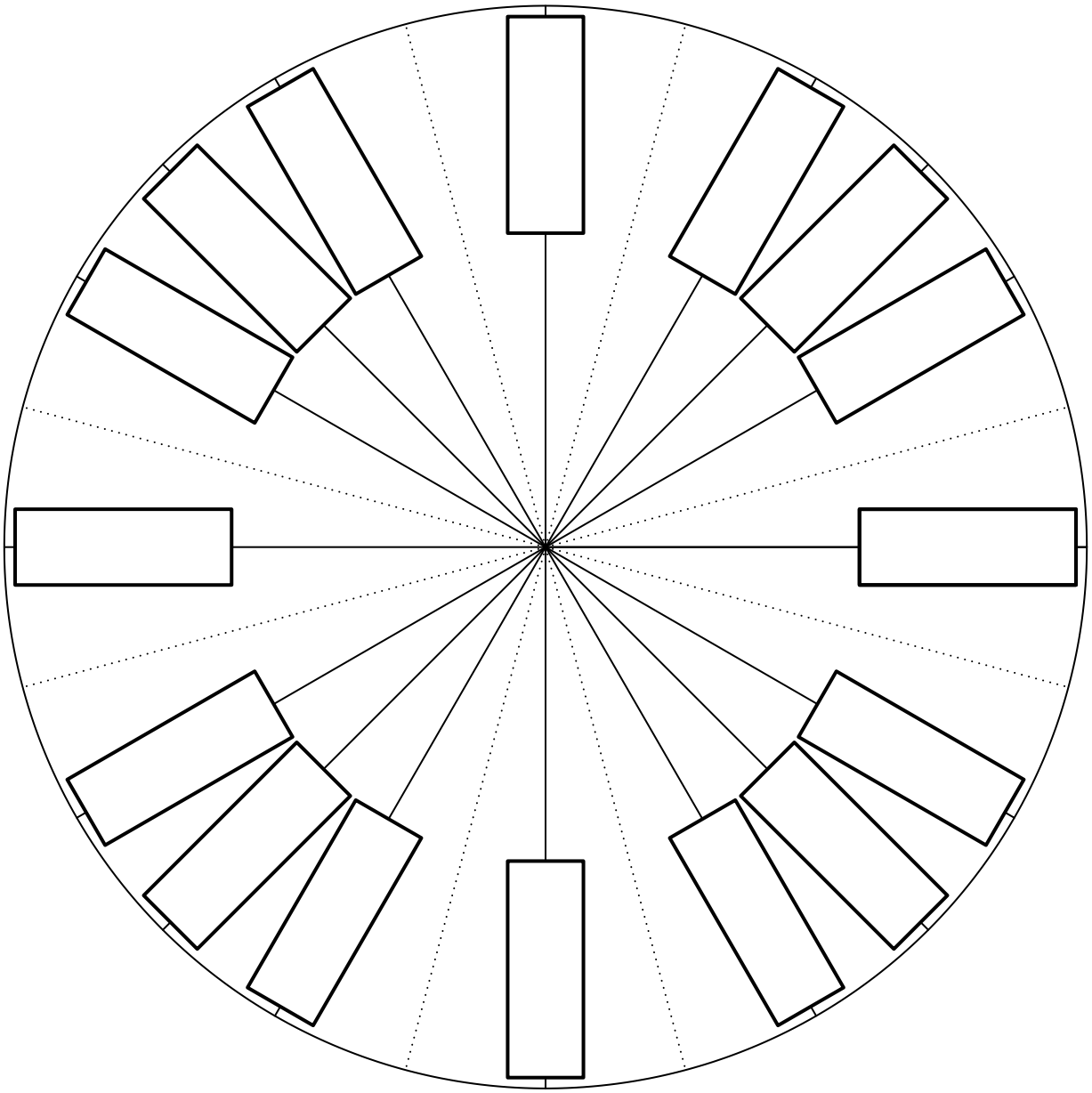


4. A circle is drawn with a radius of 4 meters. A central angle of θ radians is drawn, subtending an arc of length 24 meters. Find θ.

Name: Date:

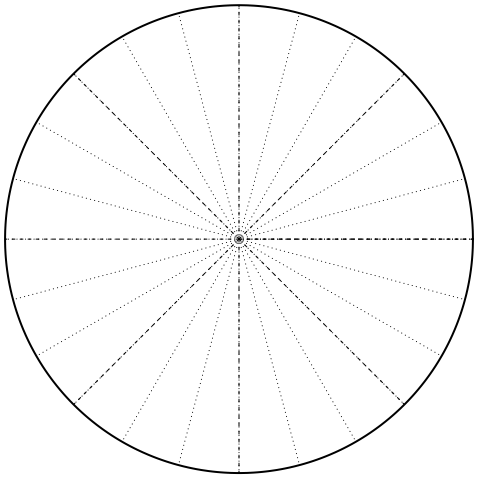
u12 Radians, Degrees, and Arc Length Practice (version 30)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

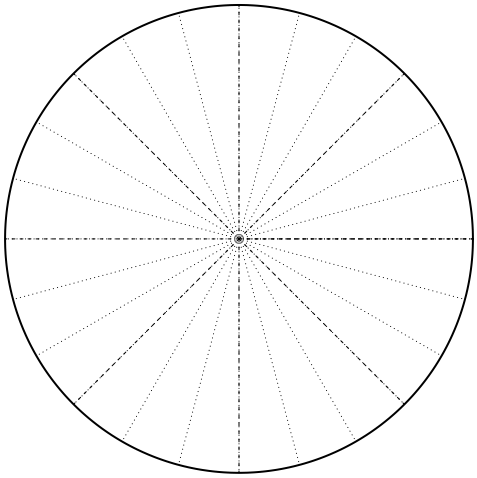


u12 Radians, Degrees, and Arc Length Practice (version 30)

2. On the circle below, draw a sketch of a **1035º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{23\pi}{4}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

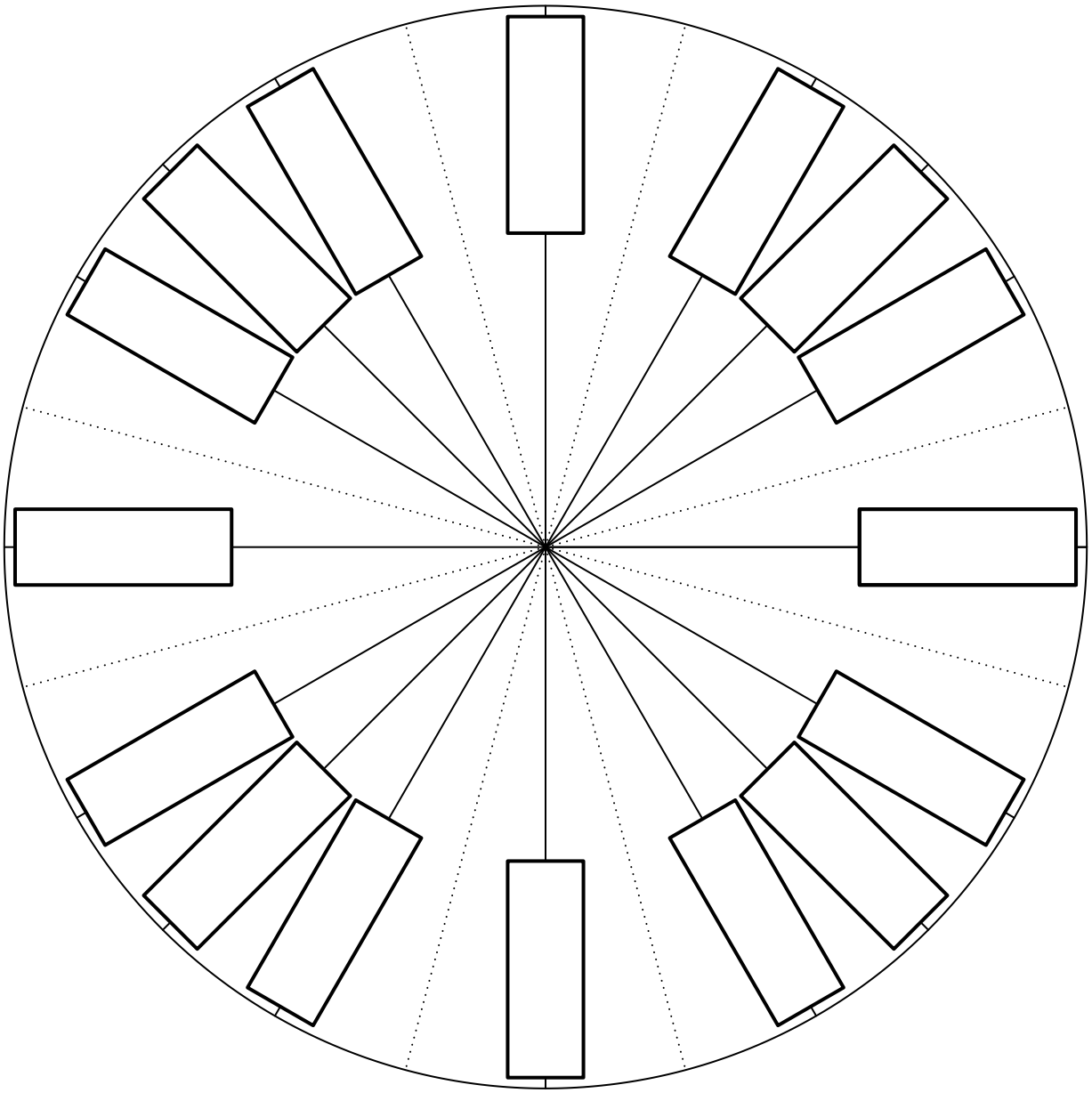


4. A circle is drawn with a radius of 3 meters. A central angle of θ radians is drawn, subtending an arc of length 12 meters. Find θ.

Name: Date:

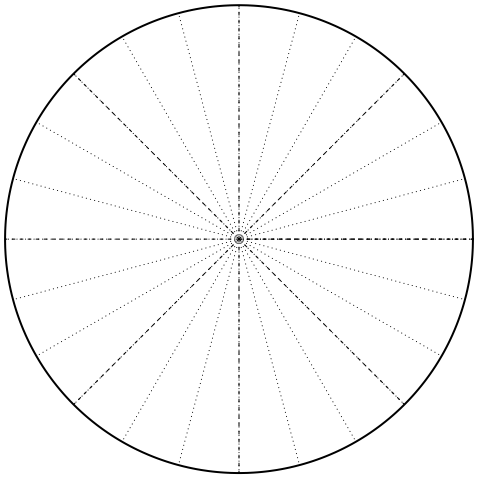
u12 Radians, Degrees, and Arc Length Practice (version 31)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

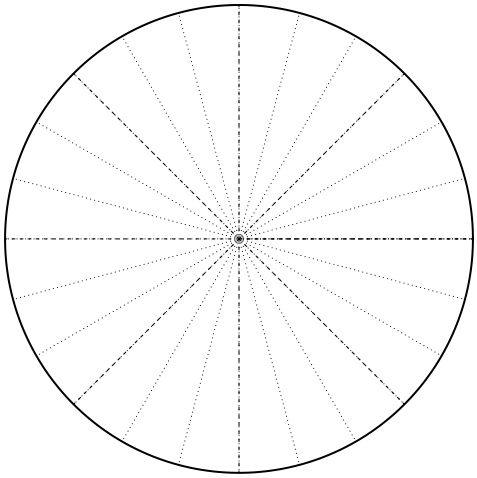


u12 Radians, Degrees, and Arc Length Practice (version 31)

2. On the circle below, draw a sketch of a **-390º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{-11\pi}{2}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

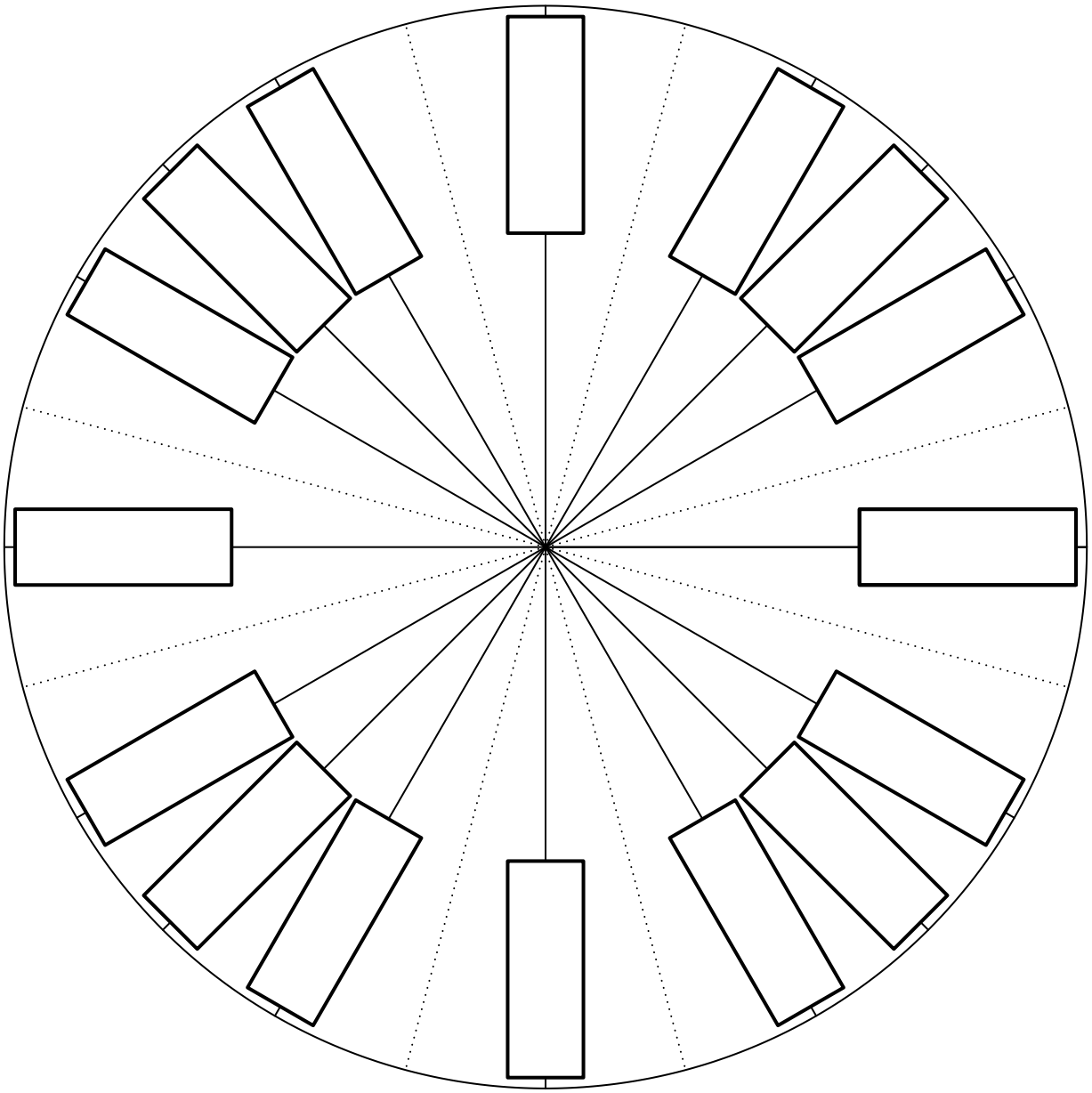


4. A circle, a central angle, and the subtended arc are drawn. The arc length is 12 meters. The central angle is 3 radians. The radius is r meters. Find r.

Name: Date:

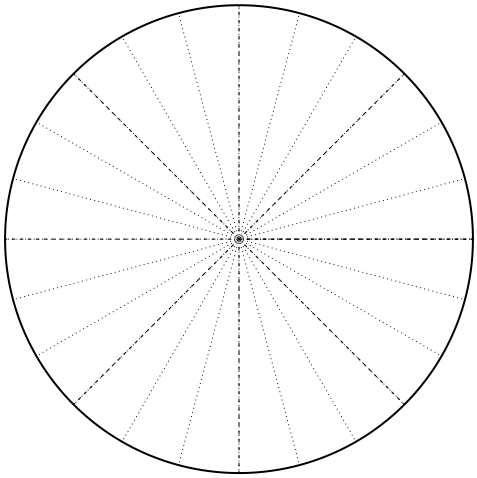
u12 Radians, Degrees, and Arc Length Practice (version 32)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

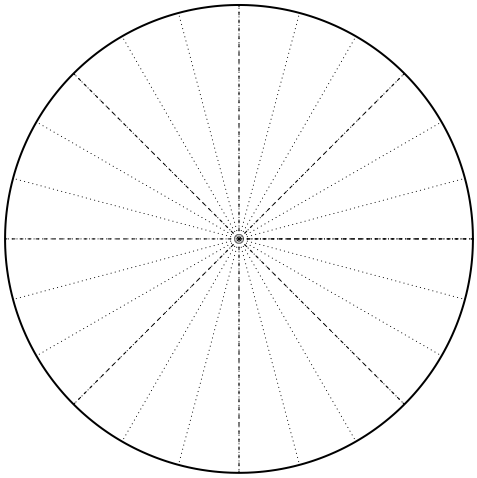


u12 Radians, Degrees, and Arc Length Practice (version 32)

2. On the circle below, draw a sketch of a **-1215º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{13\pi}{4}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

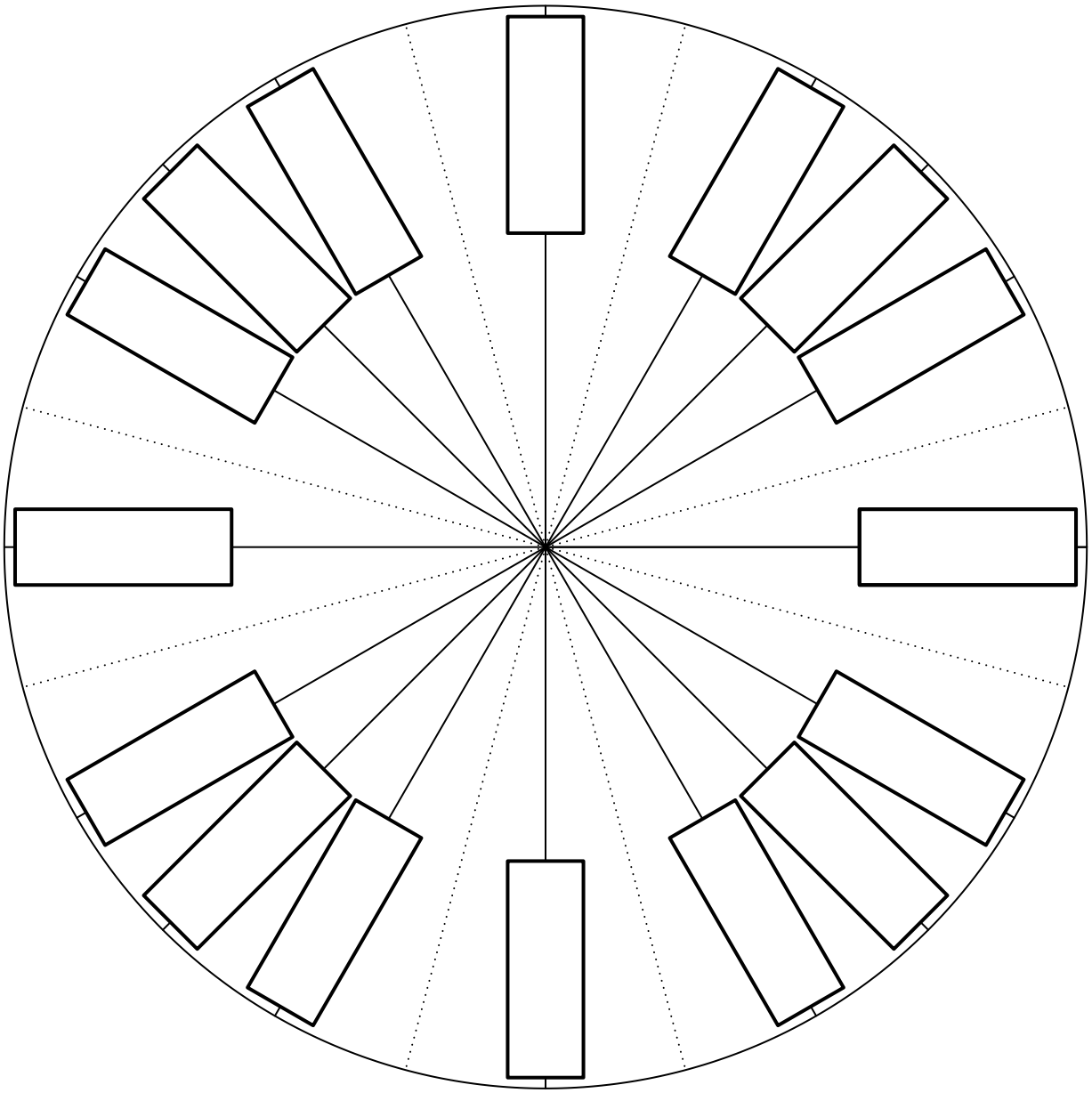


4. A circle, a central angle, and the subtended arc are drawn. The arc length is L meters. The central angle is 4 radians. The radius is 2 meters. Find L.

Name: Date:

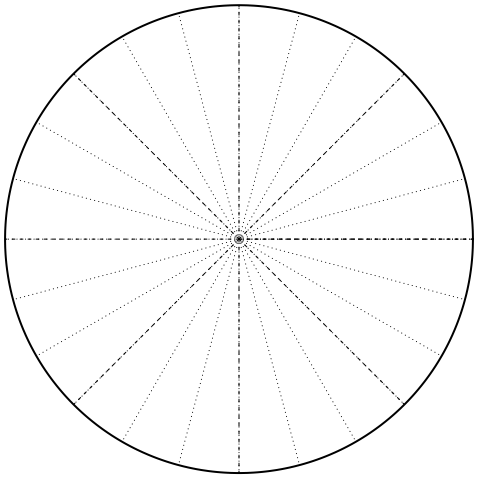
u12 Radians, Degrees, and Arc Length Practice (version 33)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

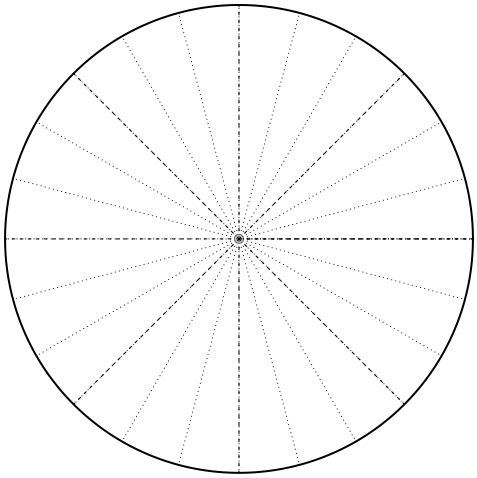


u12 Radians, Degrees, and Arc Length Practice (version 33)

2. On the circle below, draw a sketch of a **930º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{9\pi}{4}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

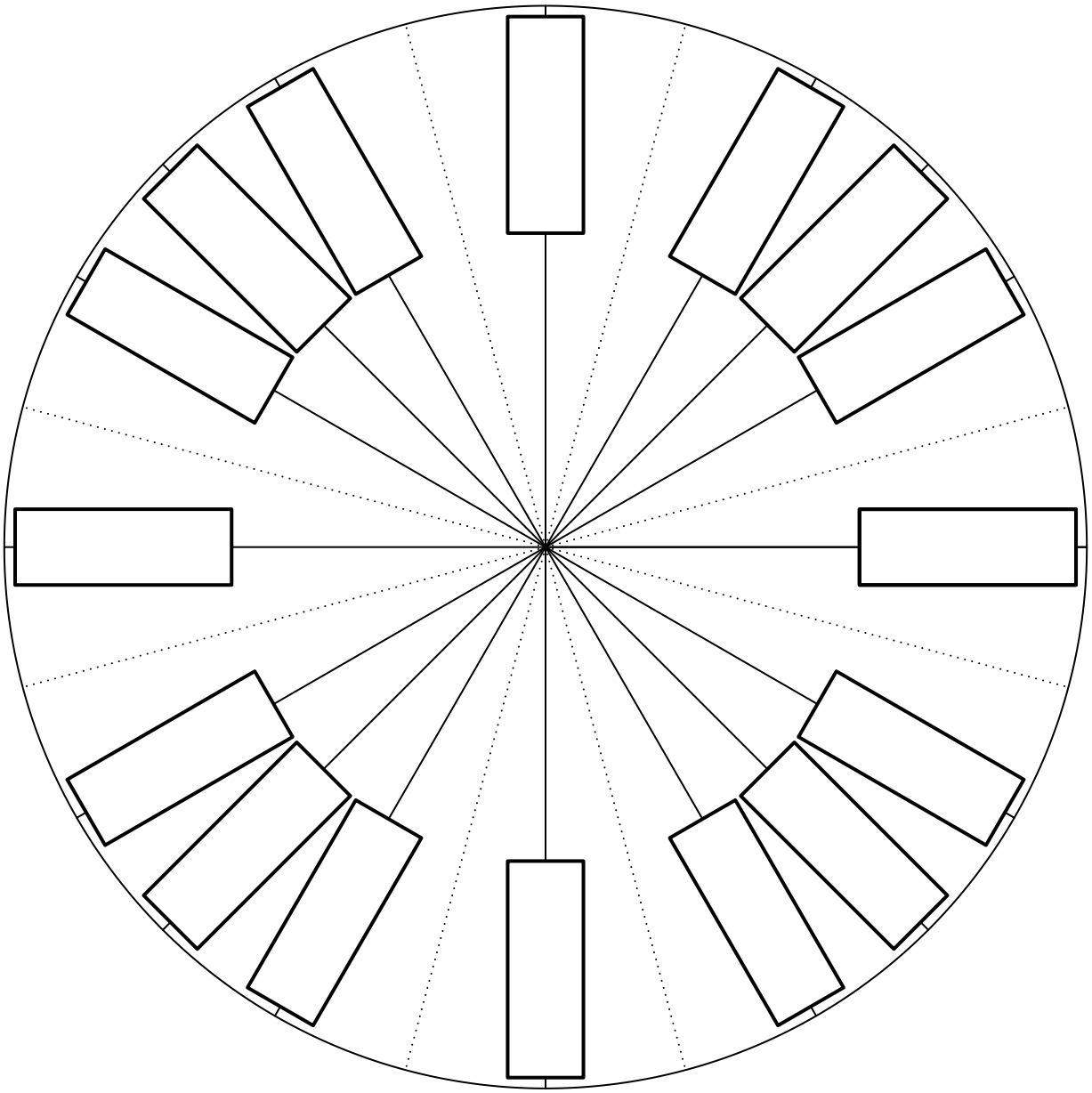


4. A circle is drawn with a radius of r meters. A central angle of 2 radians is drawn, subtending an arc of length 10 meters. Find r.

Name: Date:

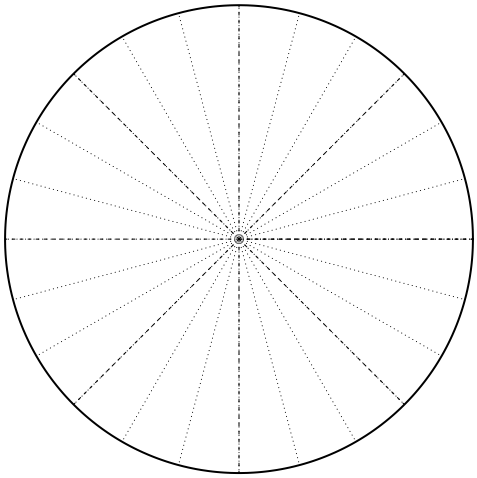
u12 Radians, Degrees, and Arc Length Practice (version 34)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

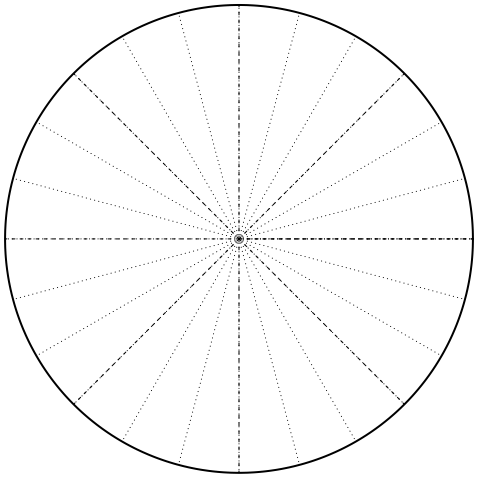


u12 Radians, Degrees, and Arc Length Practice (version 34)

2. On the circle below, draw a sketch of a **-390º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{17\pi}{4}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

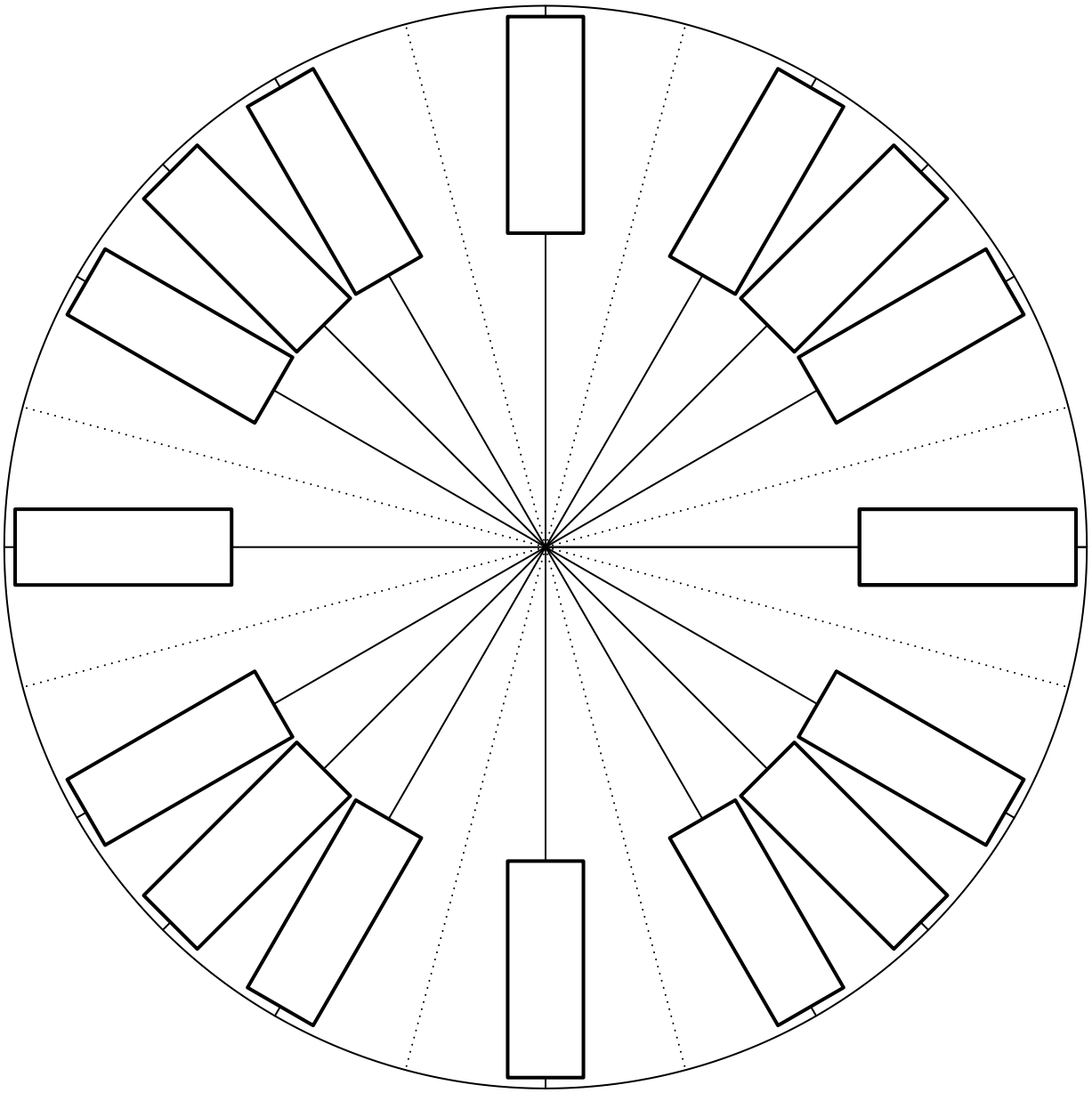


4. A circle is drawn with a central angle of 2 radians. The radius is 5 meters and the subtended arc length is L meters. Find L.

Name: Date:

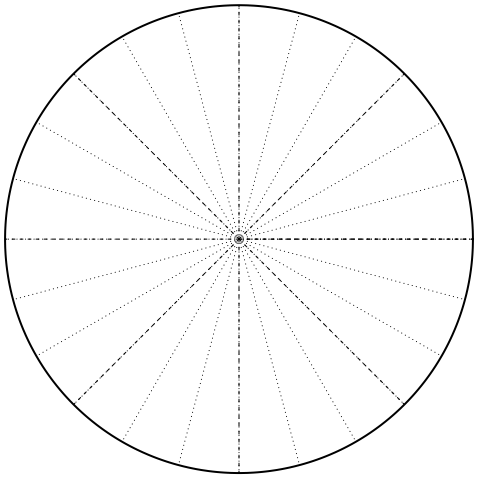
u12 Radians, Degrees, and Arc Length Practice (version 35)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

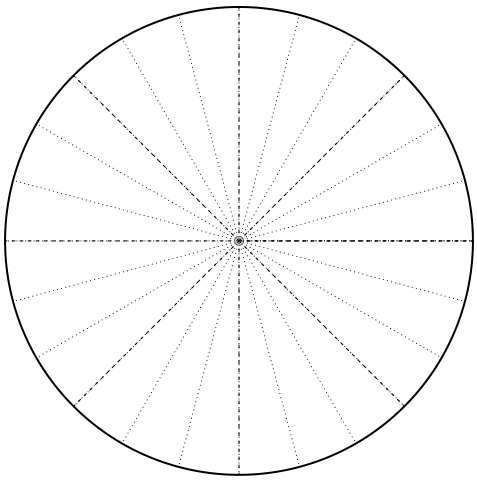


u12 Radians, Degrees, and Arc Length Practice (version 35)

2. On the circle below, draw a sketch of a **855º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{-17\pi}{6}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

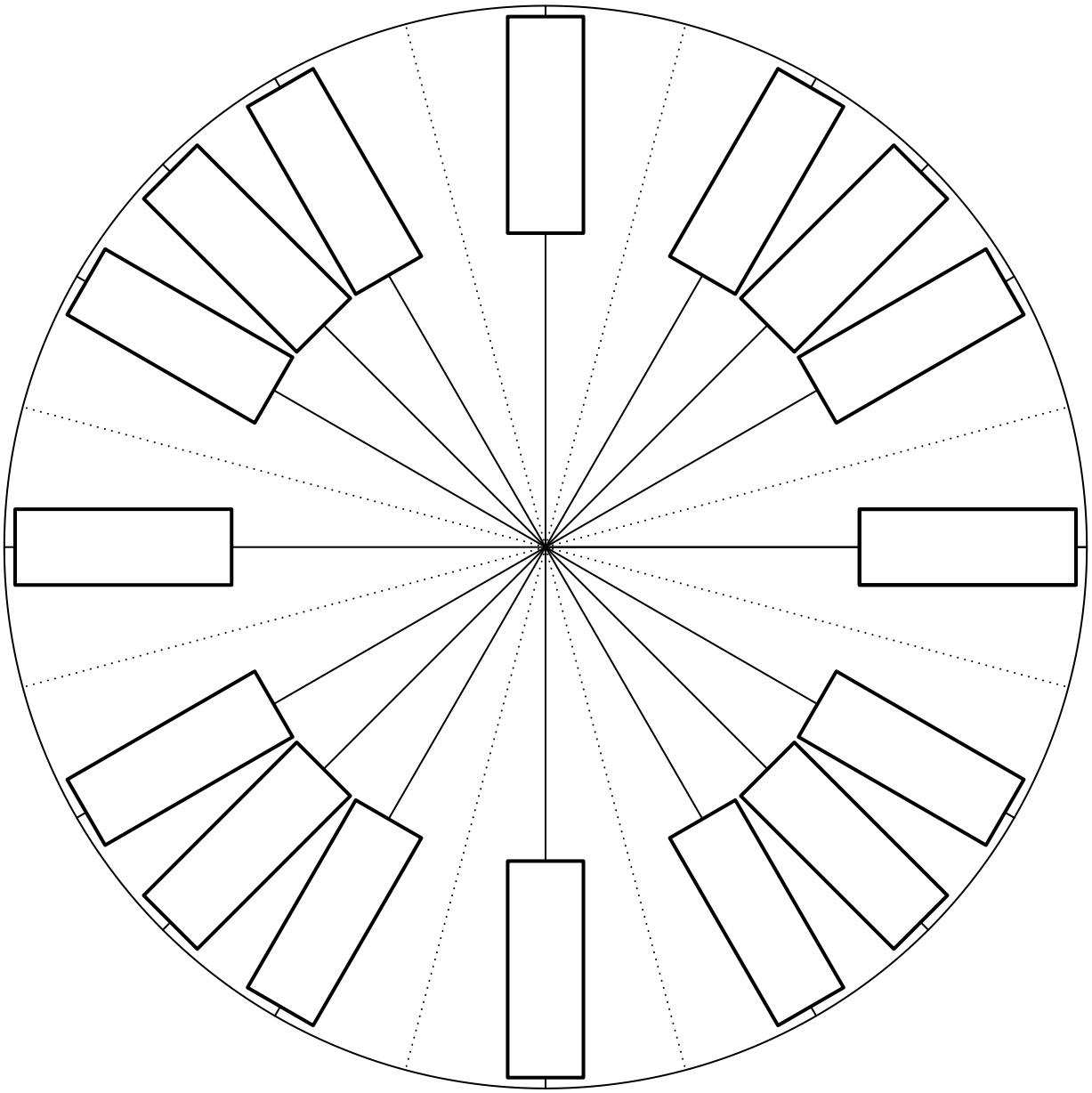


4. A circle is drawn with a central angle of 3 radians. The radius is r meters and the subtended arc length is 6 meters. Find r.

Name: Date:

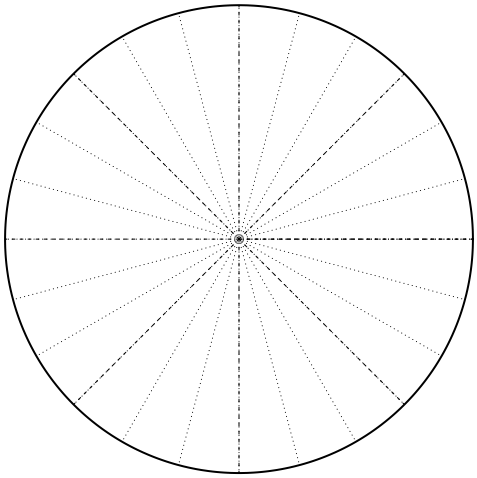
u12 Radians, Degrees, and Arc Length Practice (version 36)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

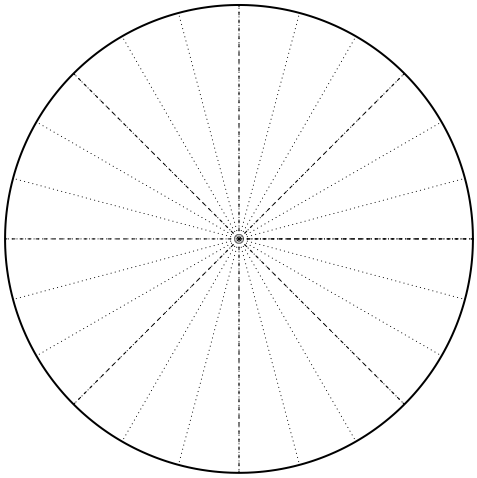


u12 Radians, Degrees, and Arc Length Practice (version 36)

2. On the circle below, draw a sketch of a **-690º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{17\pi}{6}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

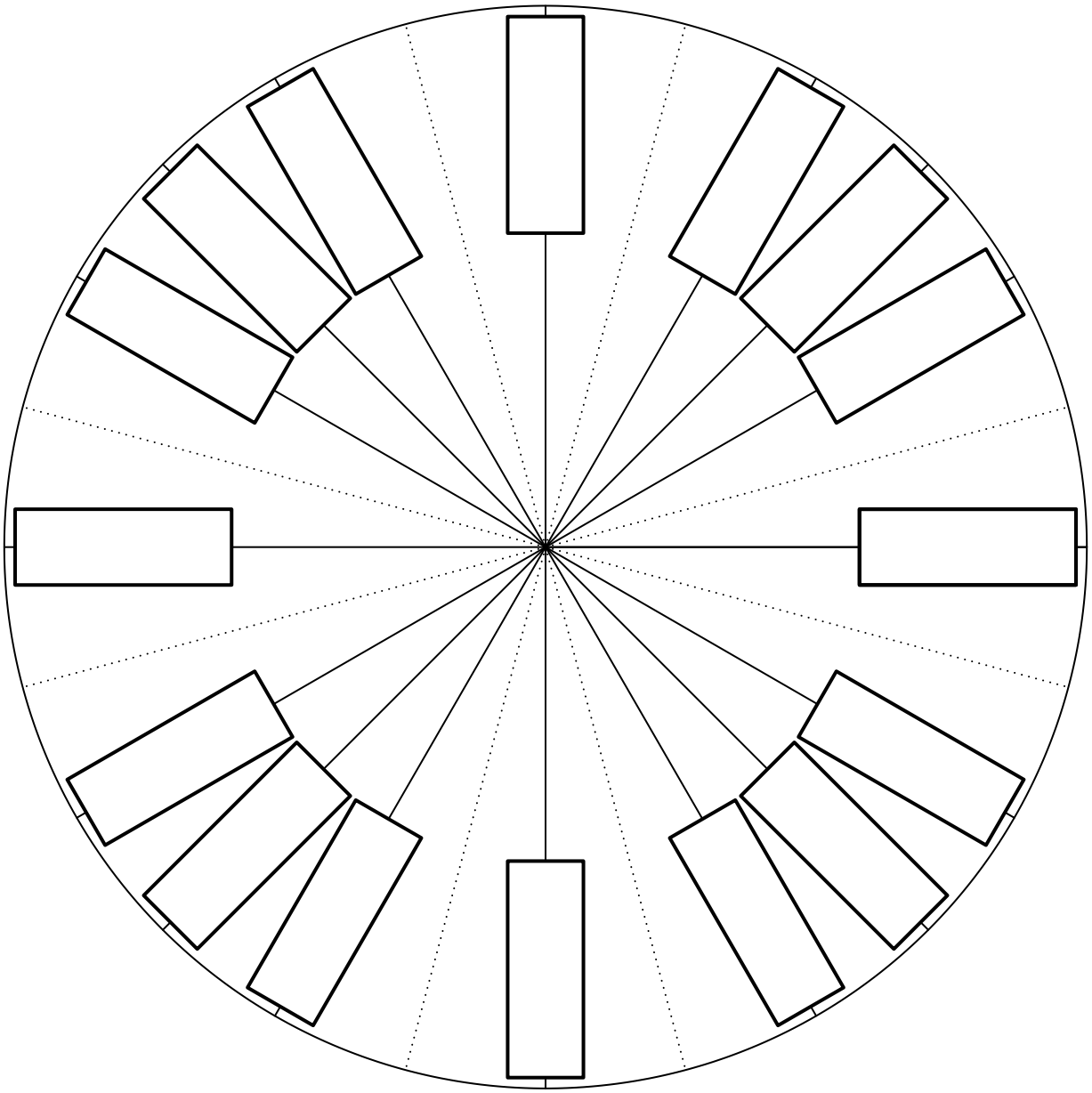


4. A circle is drawn with a radius of r meters. A central angle of 4 radians is drawn, subtending an arc of length 20 meters. Find r.

Name: Date:

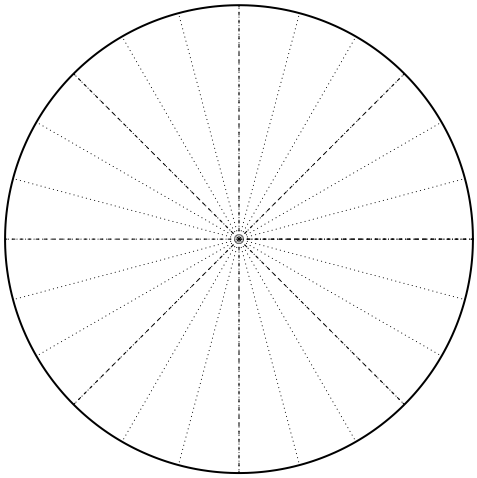
u12 Radians, Degrees, and Arc Length Practice (version 37)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

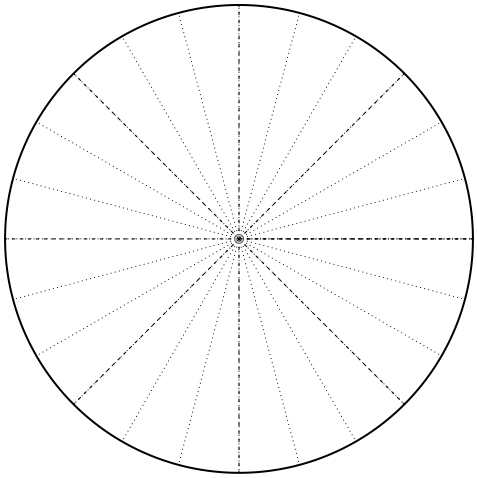


u12 Radians, Degrees, and Arc Length Practice (version 37)

2. On the circle below, draw a sketch of a **930º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{-43\pi}{6}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

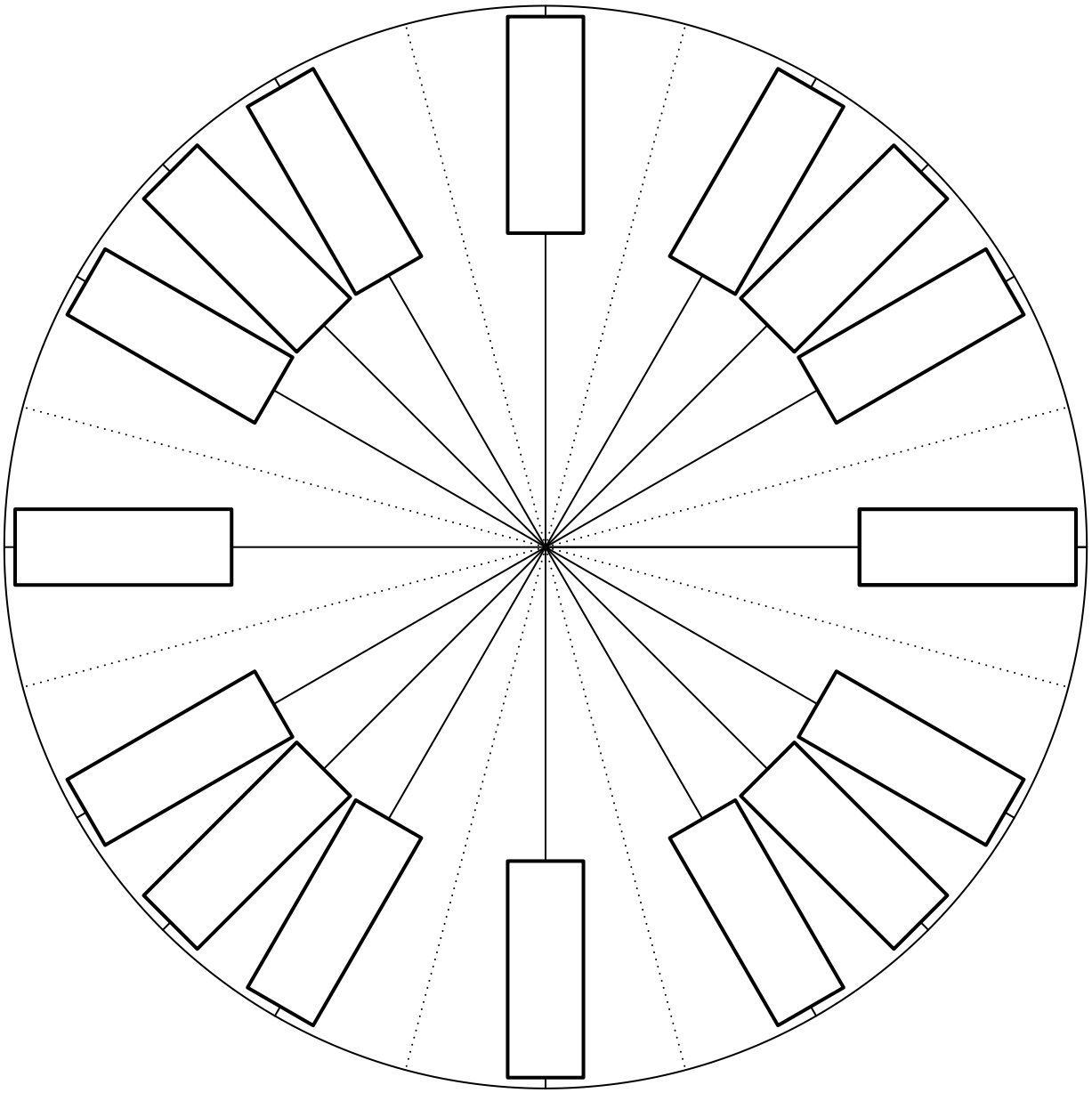


4. A circle, a central angle, and the subtended arc are drawn. The arc length is 10 meters. The central angle is 2 radians. The radius is r meters. Find r.

Name: Date:

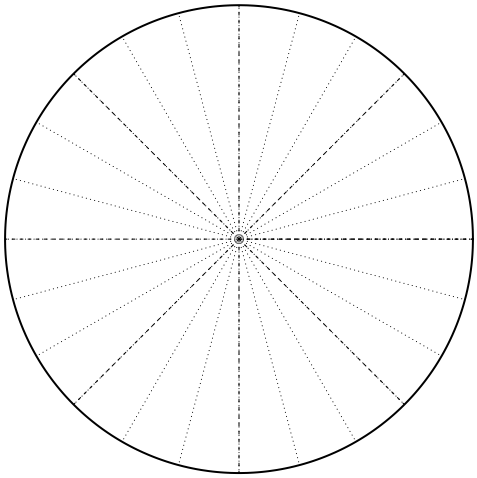
u12 Radians, Degrees, and Arc Length Practice (version 38)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

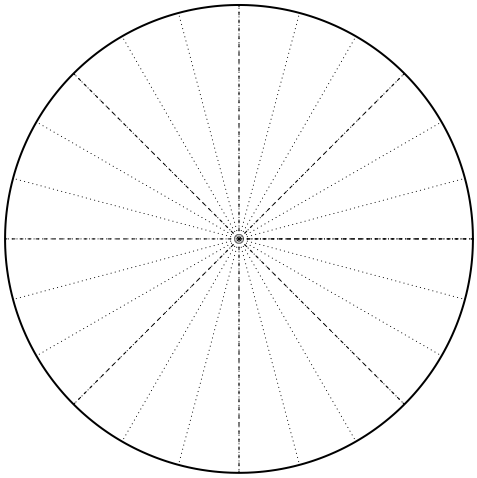


u12 Radians, Degrees, and Arc Length Practice (version 38)

2. On the circle below, draw a sketch of a **-390º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{10\pi}{3}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

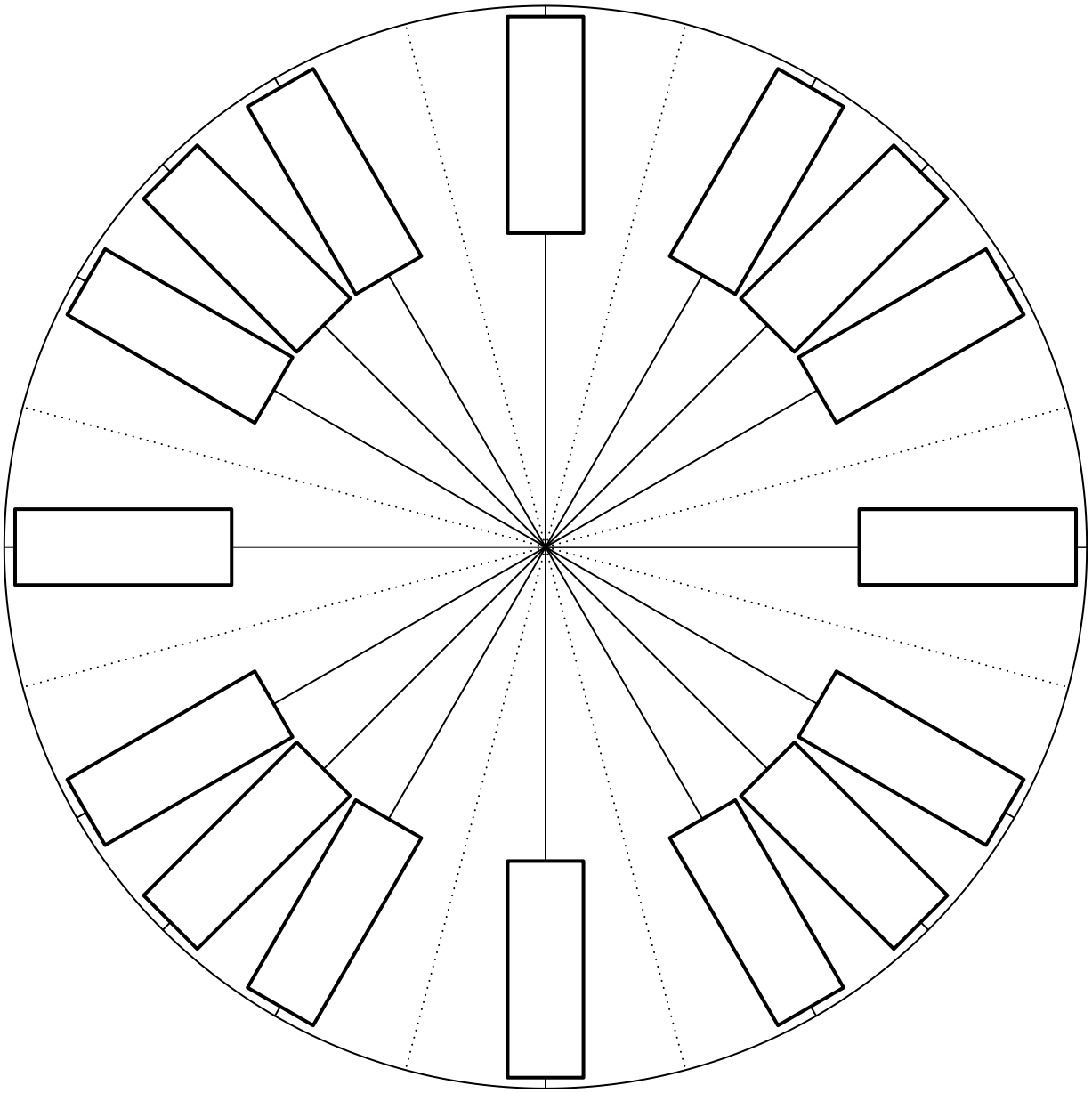


4. A circle, a central angle, and the subtended arc are drawn. The arc length is L meters. The central angle is 5 radians. The radius is 3 meters. Find L.

Name: Date:

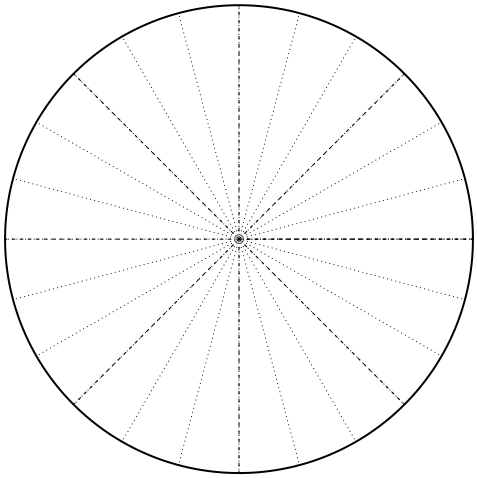
u12 Radians, Degrees, and Arc Length Practice (version 39)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

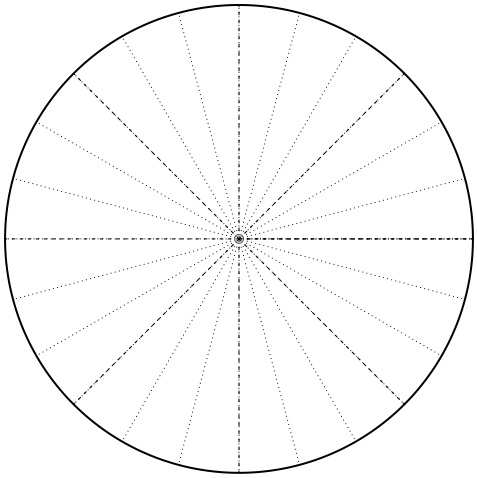


u12 Radians, Degrees, and Arc Length Practice (version 39)

2. On the circle below, draw a sketch of a **420°** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{23\pi}{4}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

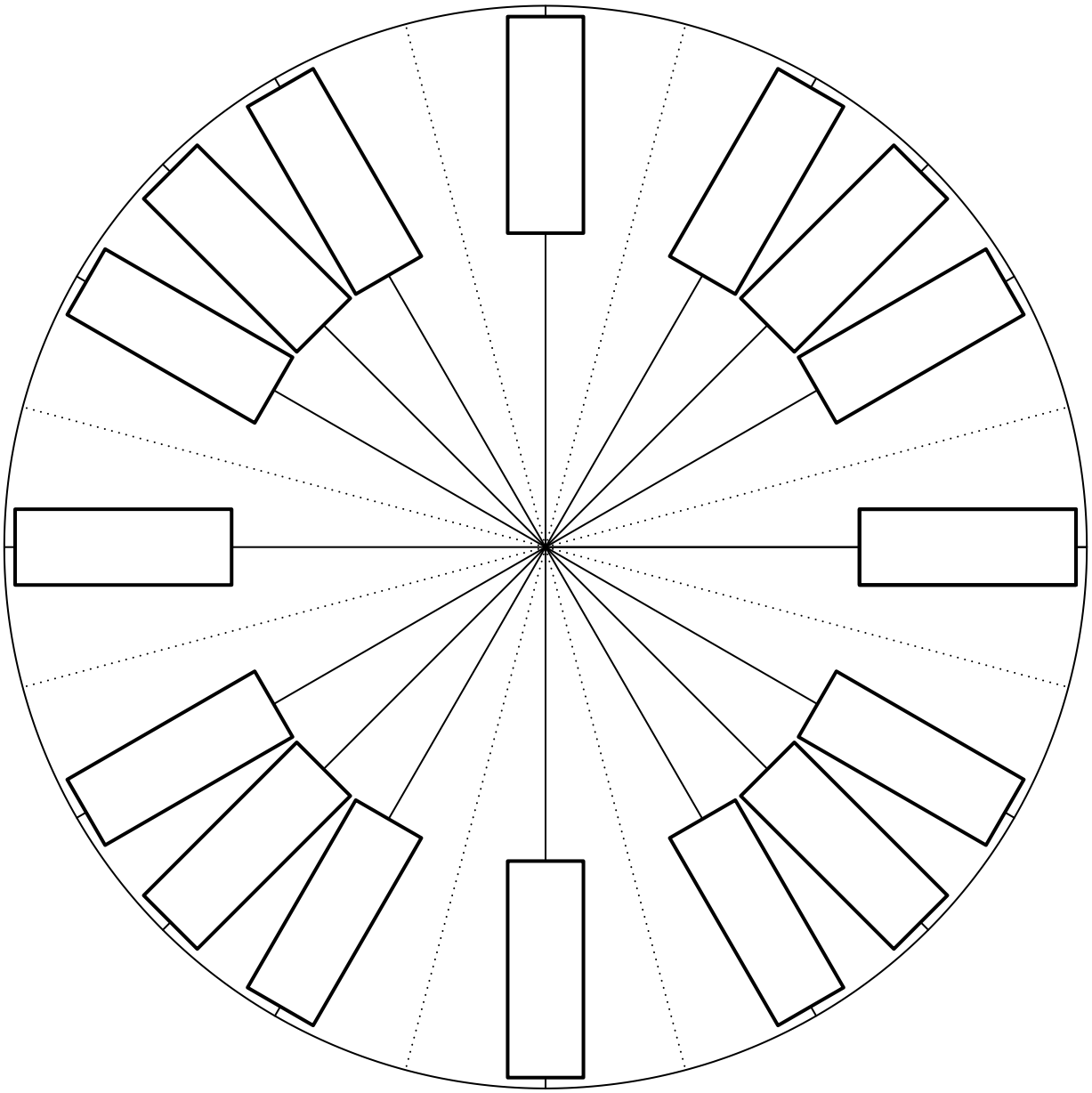


4. A circle is drawn with a central angle of θ radians. The radius is 5 meters and the subtended arc length is 10 meters. Find θ.

Name: Date:

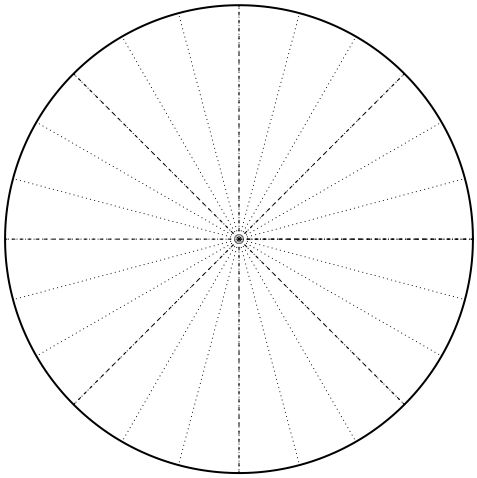
u12 Radians, Degrees, and Arc Length Practice (version 40)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

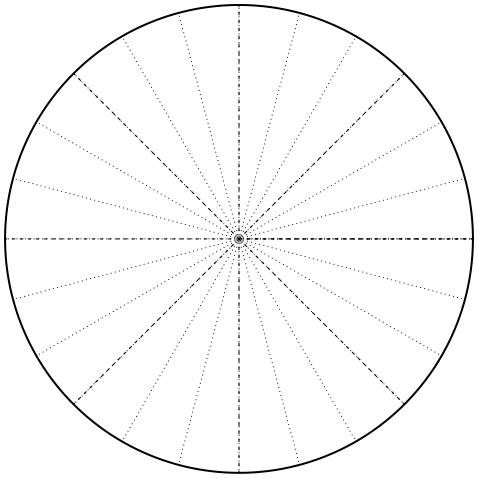


u12 Radians, Degrees, and Arc Length Practice (version 40)

2. On the circle below, draw a sketch of a **1380º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{-9\pi}{4}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

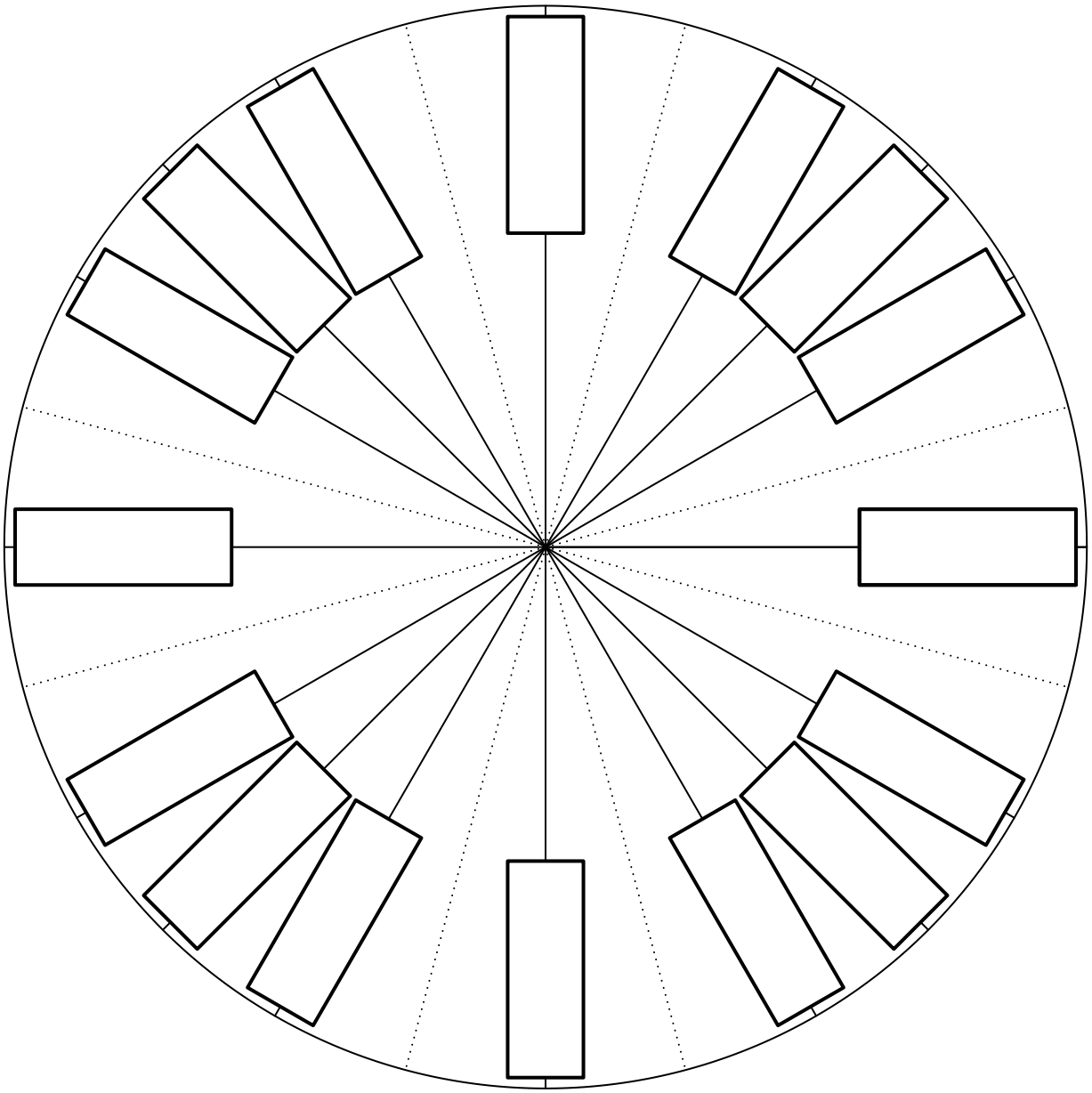


4. A circle is drawn with a central angle of 5 radians. The radius is r meters and the subtended arc length is 15 meters. Find r.

Name: Date:

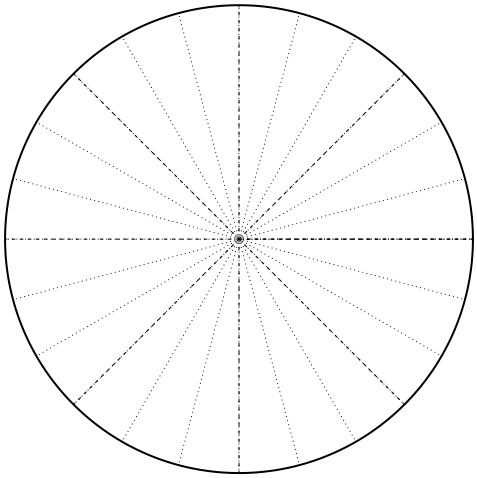
u12 Radians, Degrees, and Arc Length Practice (version 41)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

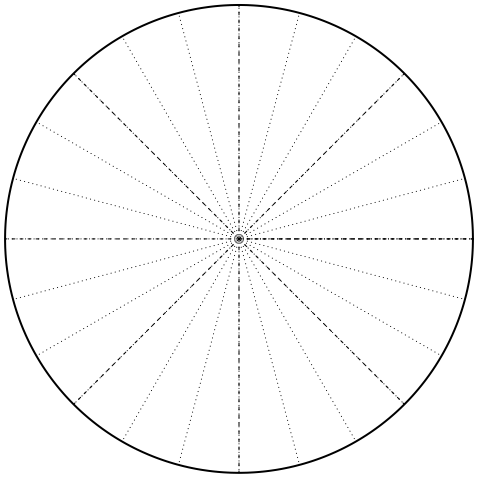


u12 Radians, Degrees, and Arc Length Practice (version 41)

2. On the circle below, draw a sketch of a **1200º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{31\pi}{6}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

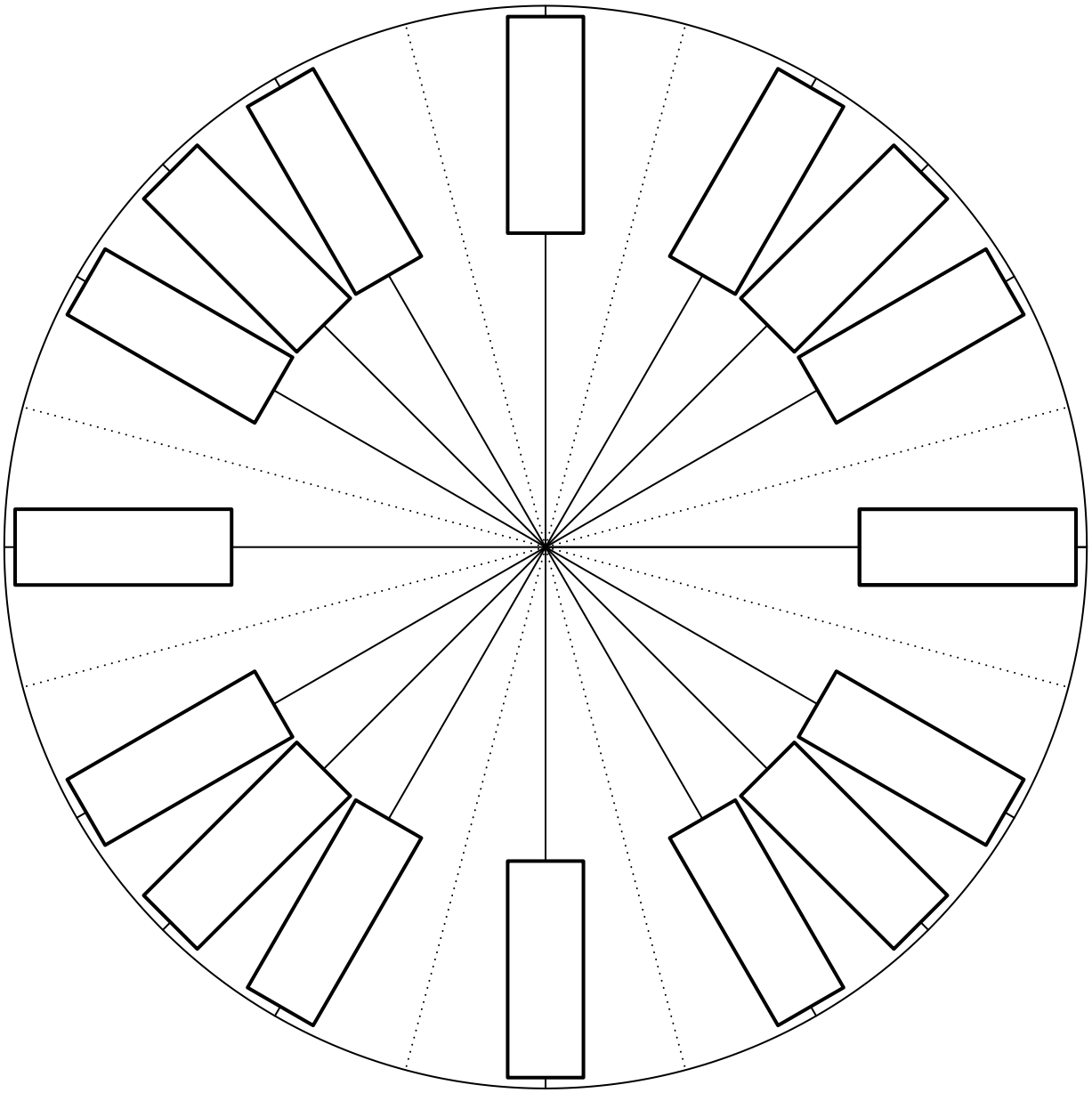


4. A circle is drawn with a central angle of θ radians. The radius is 6 meters and the subtended arc length is 18 meters. Find θ.

Name: Date:

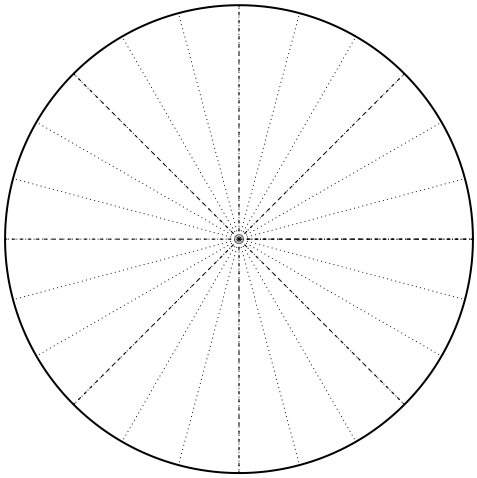
u12 Radians, Degrees, and Arc Length Practice (version 42)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

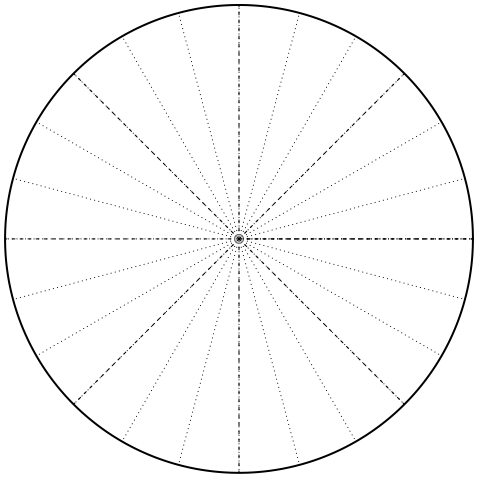


u12 Radians, Degrees, and Arc Length Practice (version 42)

2. On the circle below, draw a sketch of a **-480º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{10\pi}{3}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

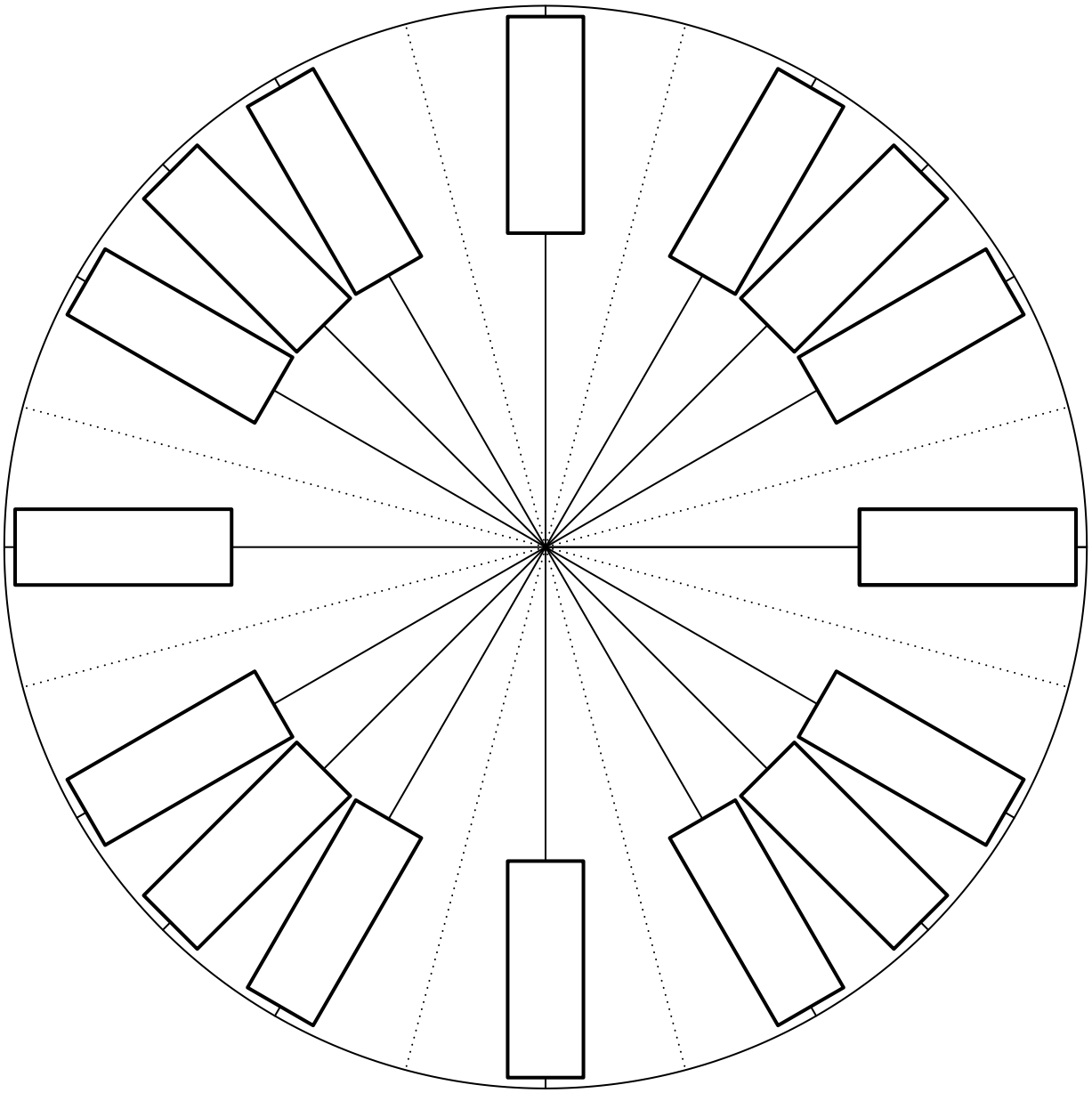


4. A circle, a central angle, and the subtended arc are drawn. The arc length is 18 meters. The central angle is 6 radians. The radius is r meters. Find r.

Name: Date:

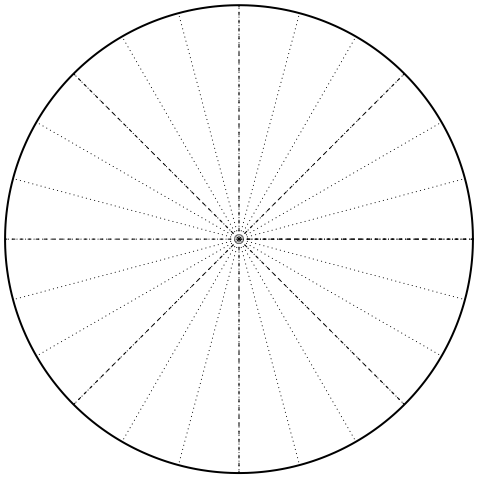
u12 Radians, Degrees, and Arc Length Practice (version 43)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

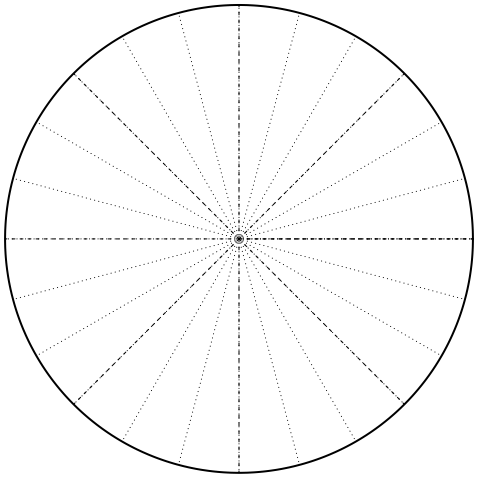


u12 Radians, Degrees, and Arc Length Practice (version 43)

2. On the circle below, draw a sketch of a **-405º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{31\pi}{6}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

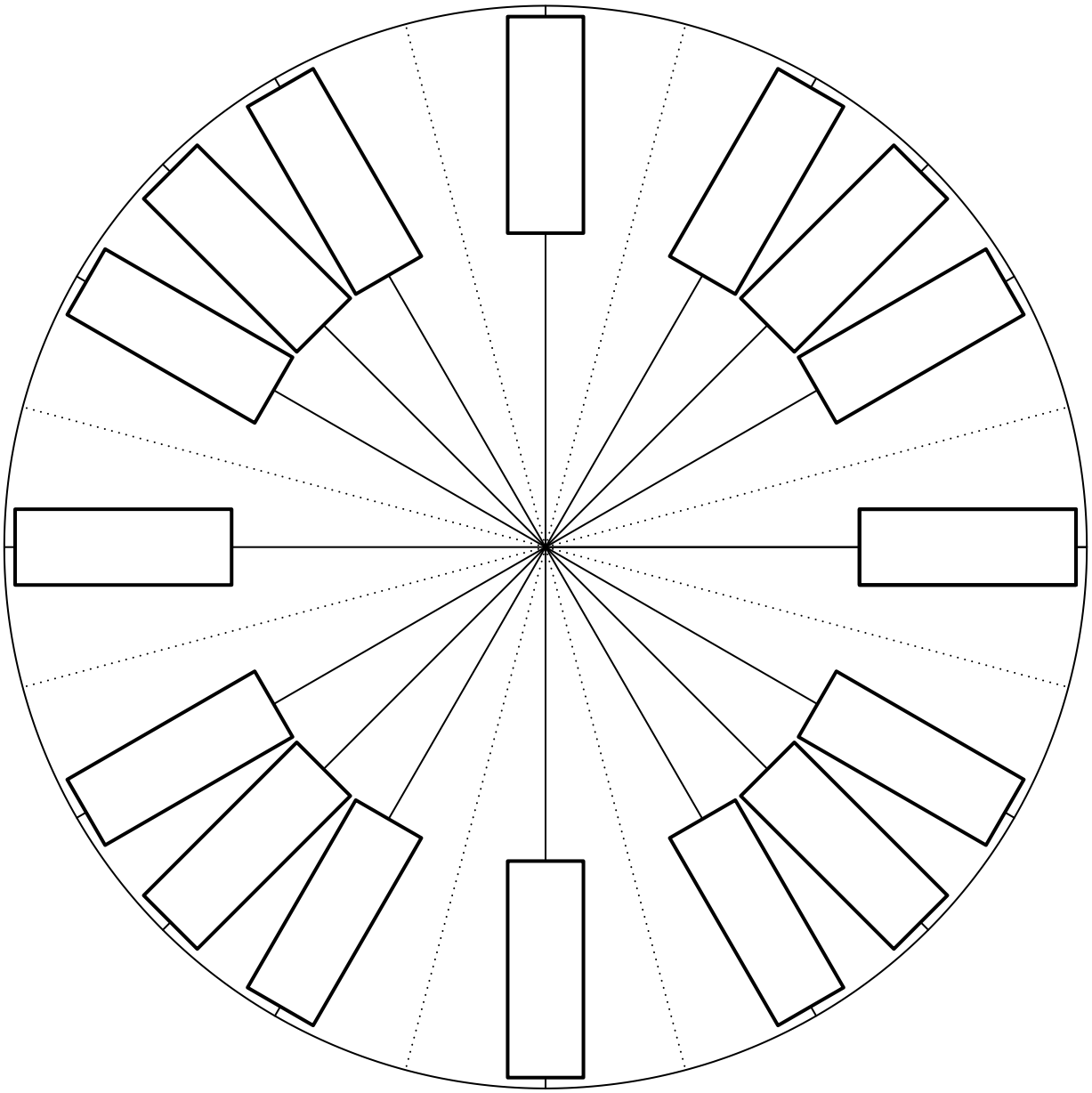


4. A circle is drawn with a central angle of 4 radians. The radius is 6 meters and the subtended arc length is L meters. Find L.

Name: Date:

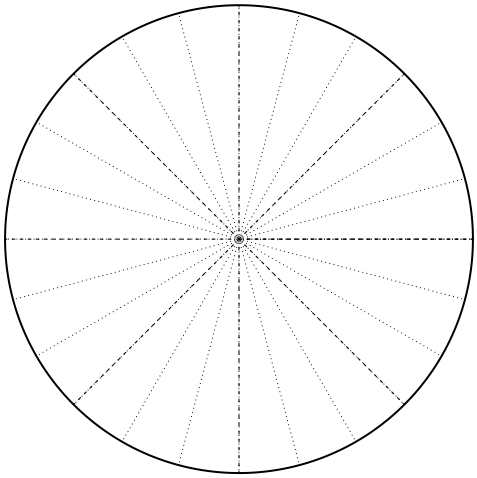
u12 Radians, Degrees, and Arc Length Practice (version 44)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

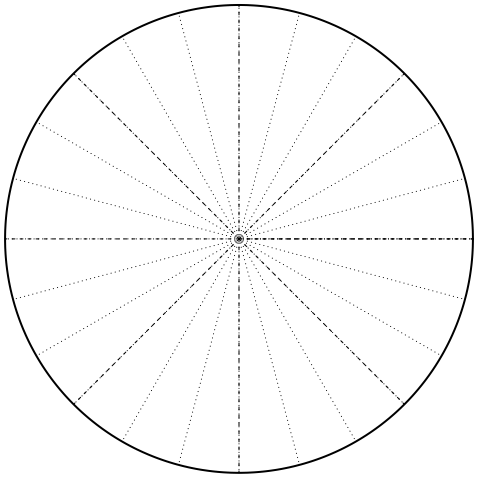


u12 Radians, Degrees, and Arc Length Practice (version 44)

2. On the circle below, draw a sketch of a **-630º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{23\pi}{6}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

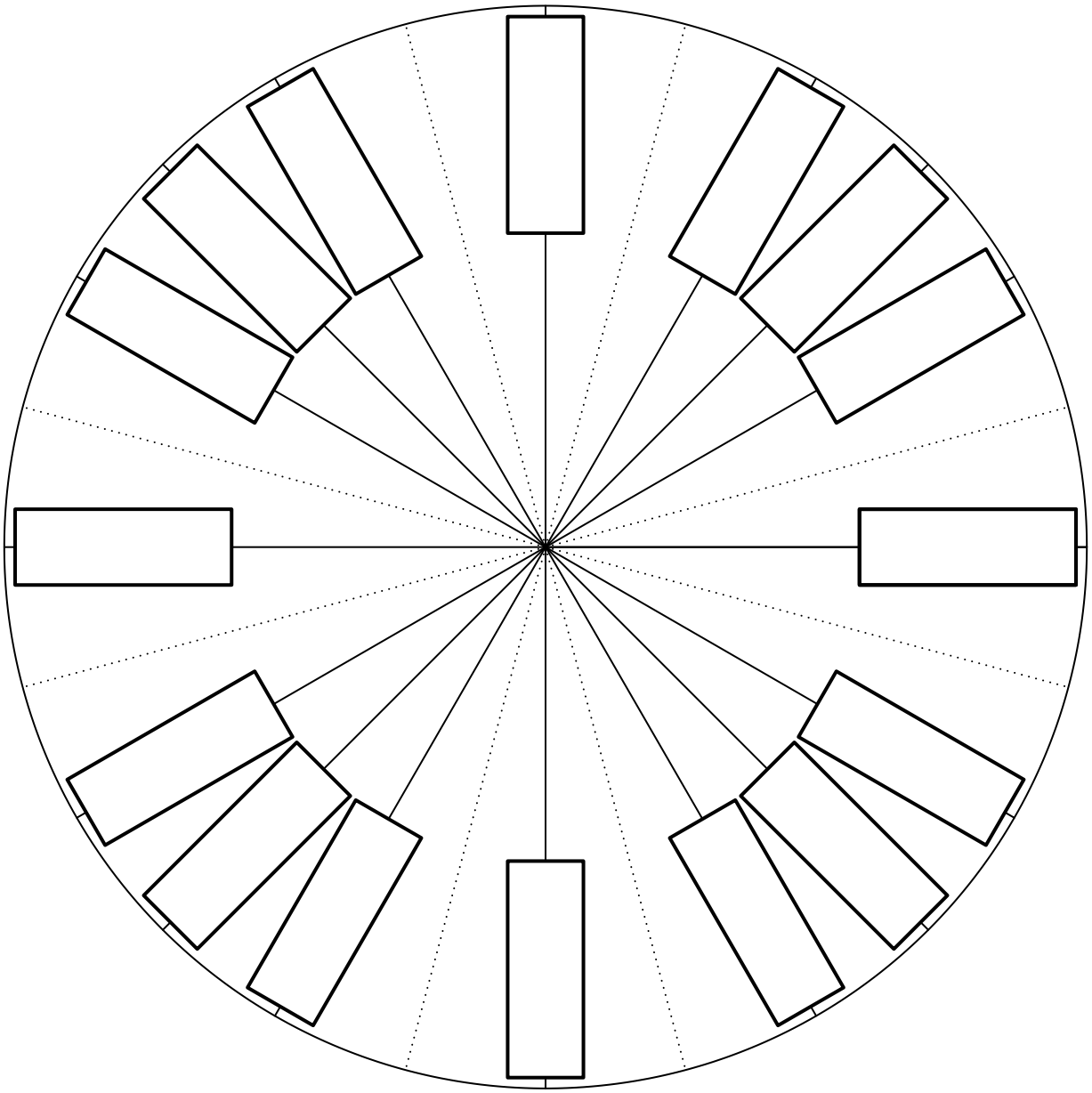


4. A circle is drawn with a radius of r meters. A central angle of 2 radians is drawn, subtending an arc of length 10 meters. Find r.

Name: Date:

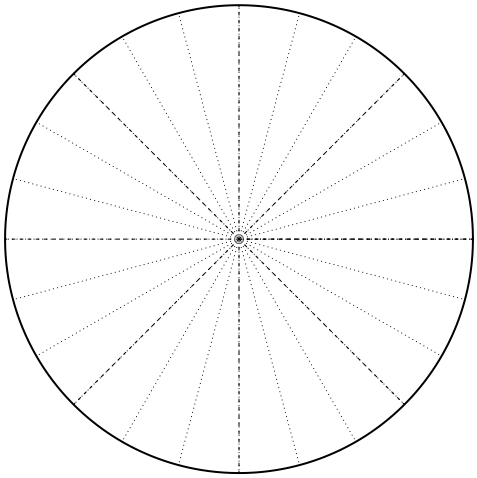
u12 Radians, Degrees, and Arc Length Practice (version 45)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

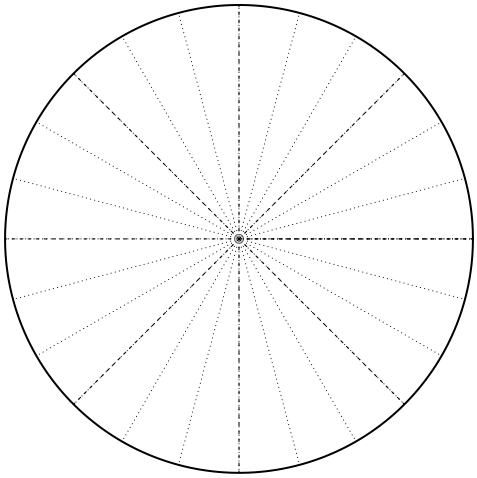


u12 Radians, Degrees, and Arc Length Practice (version 45)

2. On the circle below, draw a sketch of a **630º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{-22\pi}{3}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

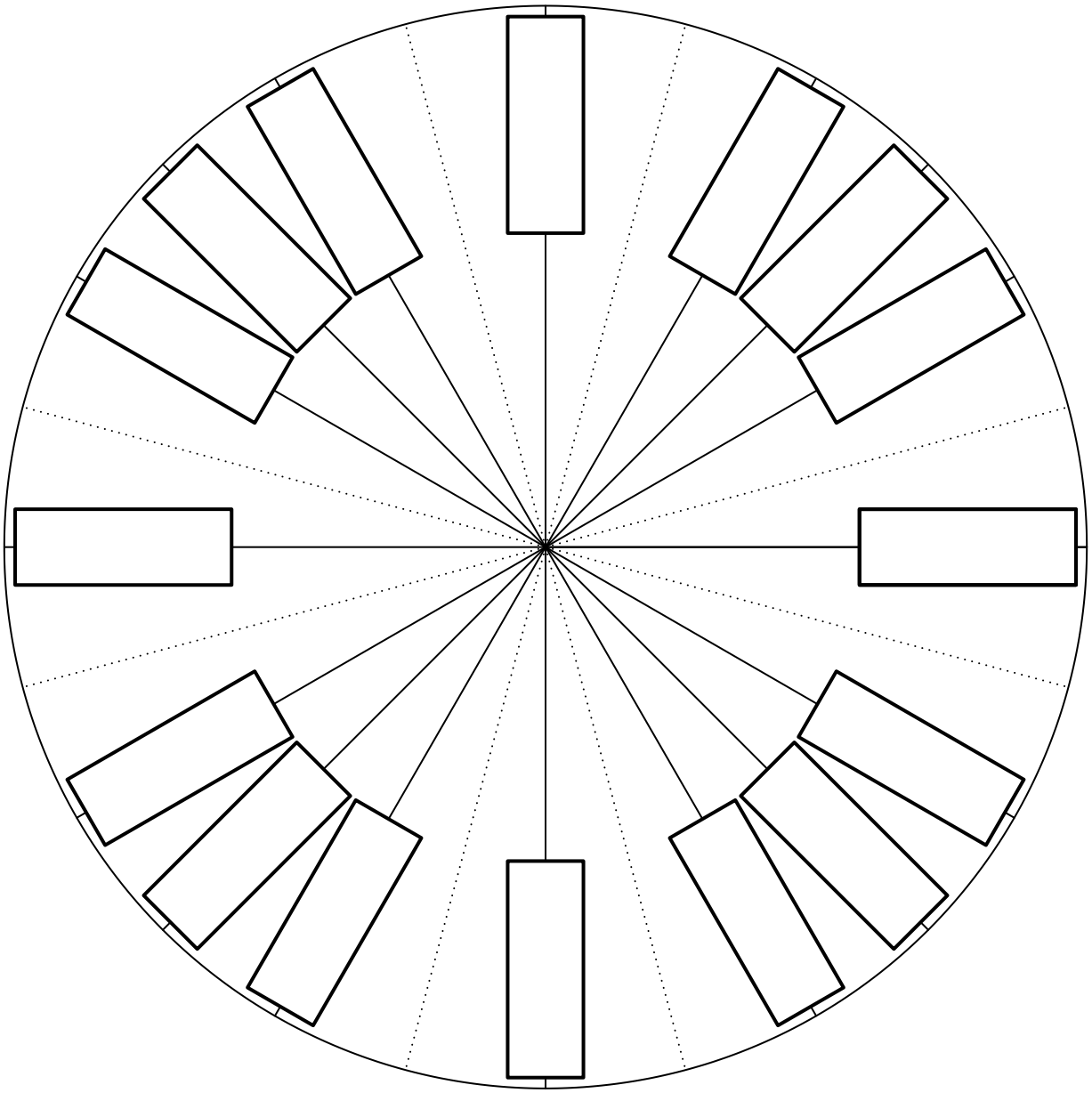


4. A circle, a central angle, and the subtended arc are drawn. The arc length is L meters. The central angle is 5 radians. The radius is 4 meters. Find L.

Name: Date:

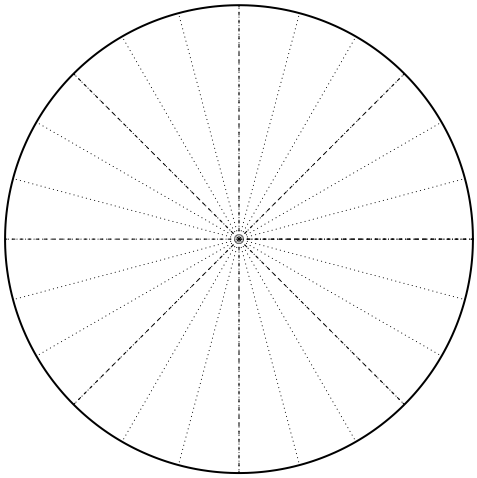
u12 Radians, Degrees, and Arc Length Practice (version 46)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

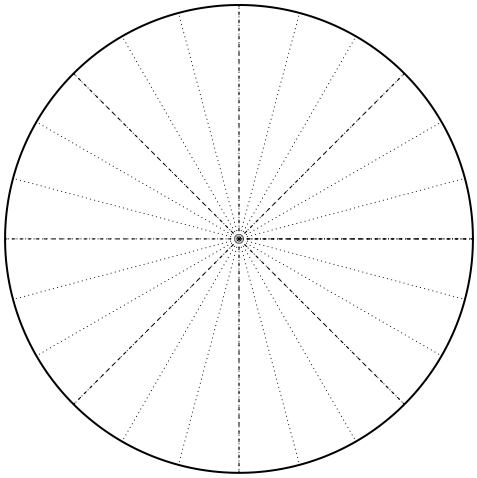


u12 Radians, Degrees, and Arc Length Practice (version 46)

2. On the circle below, draw a sketch of a **-1050º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{13\pi}{2}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

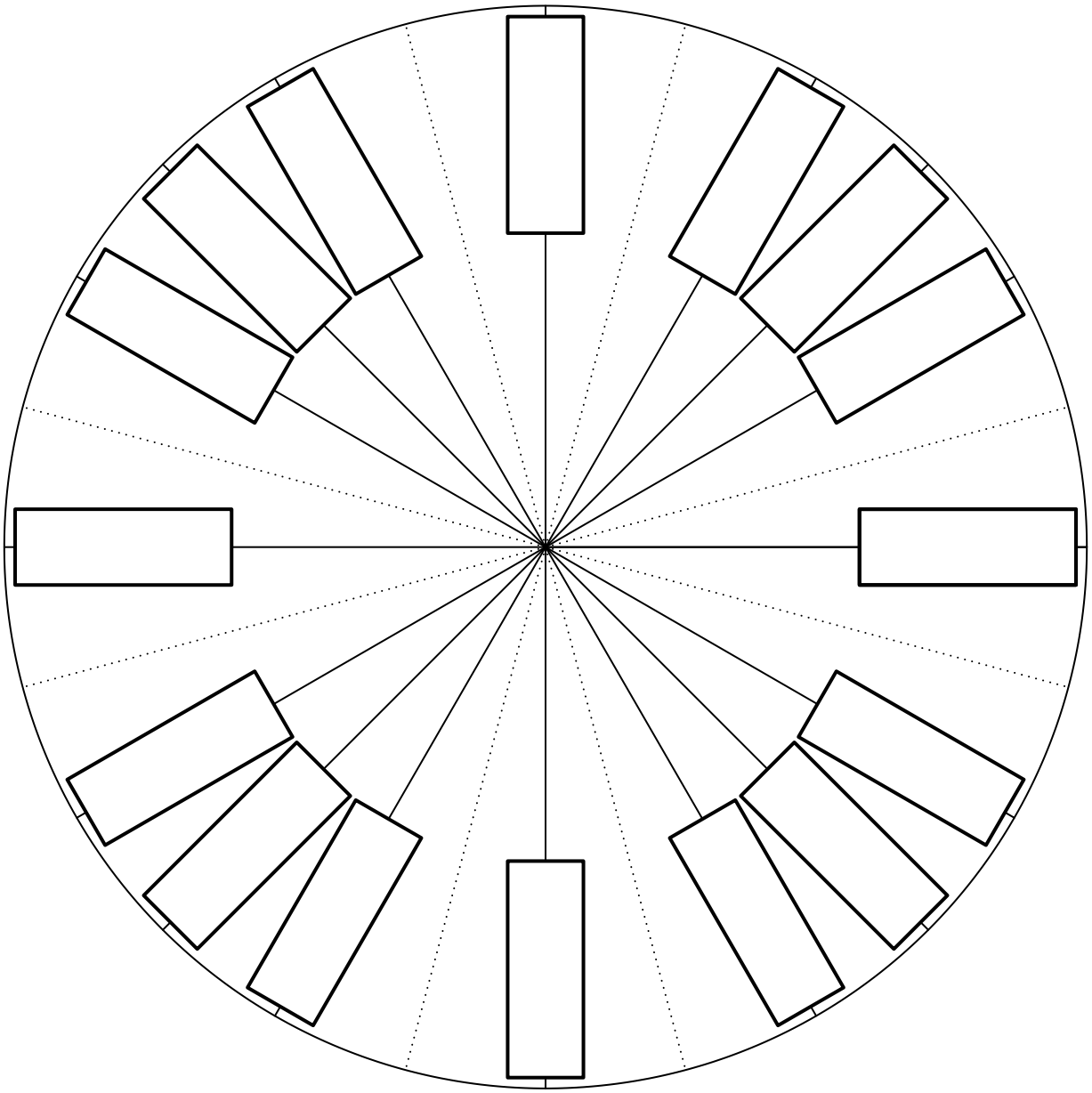


4. A circle is drawn with a radius of 2 meters. A central angle of θ radians is drawn, subtending an arc of length 8 meters. Find θ.

Name: Date:

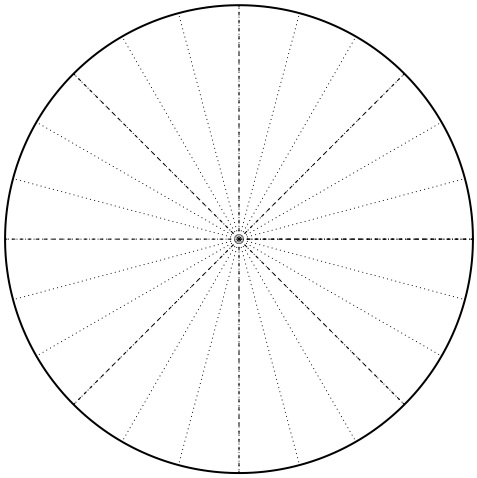
u12 Radians, Degrees, and Arc Length Practice (version 47)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

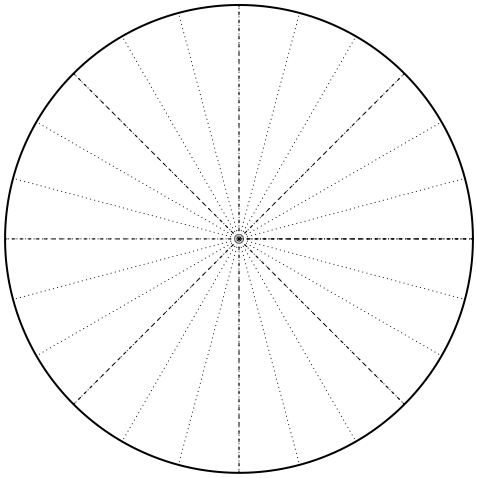


u12 Radians, Degrees, and Arc Length Practice (version 47)

2. On the circle below, draw a sketch of a **1305º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{-13\pi}{2}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

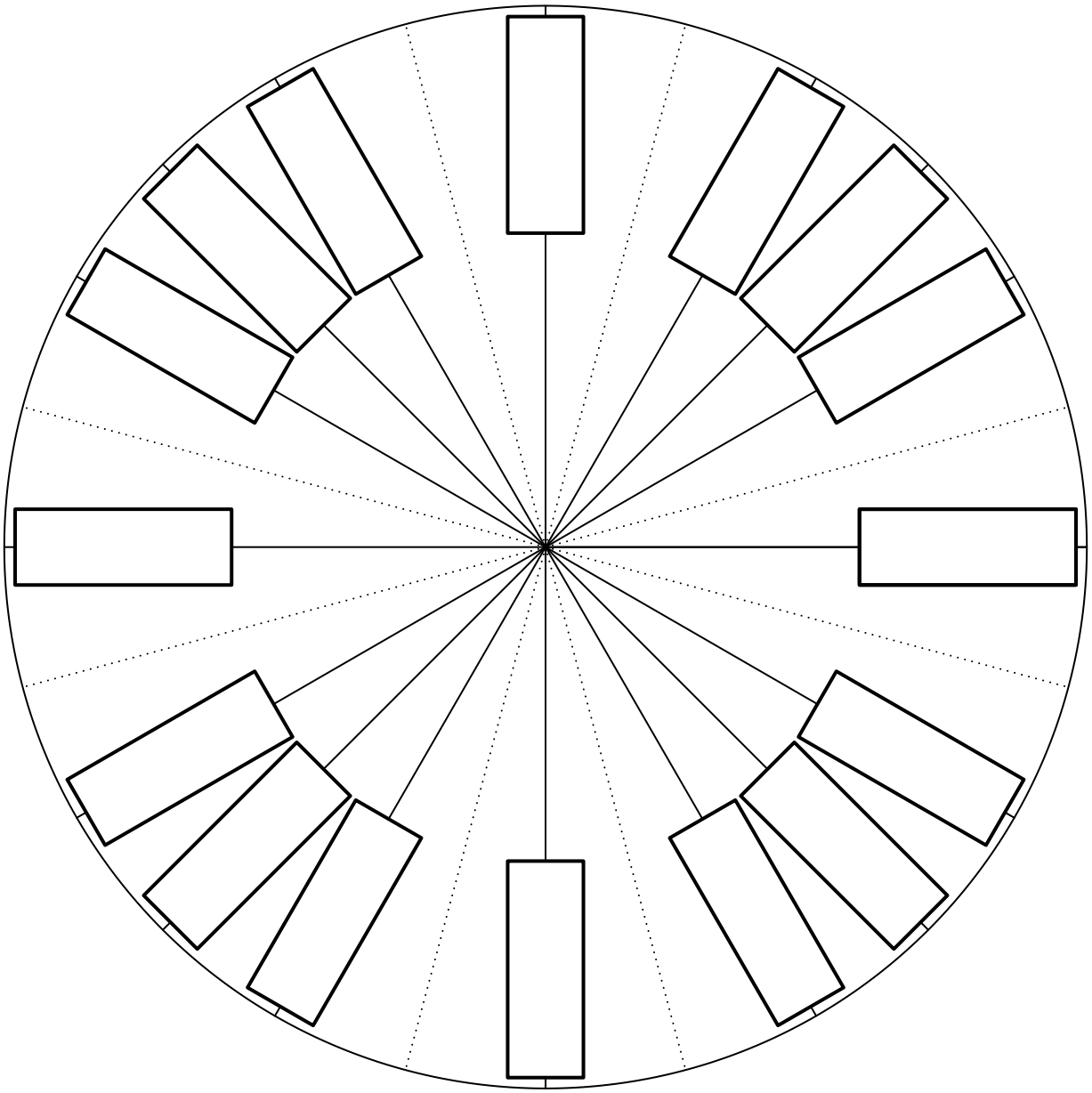


4. A circle is drawn with a central angle of 2 radians. The radius is 3 meters and the subtended arc length is L meters. Find L.

Name: Date:

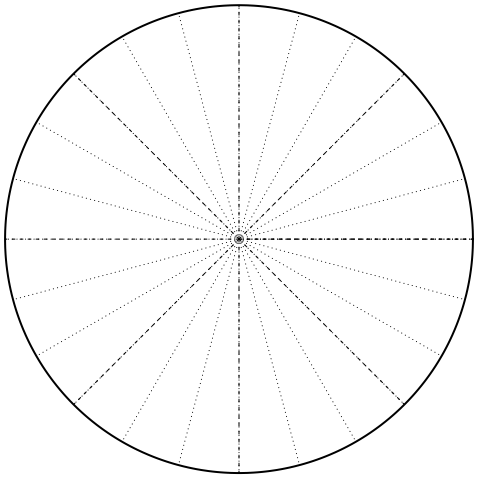
u12 Radians, Degrees, and Arc Length Practice (version 48)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

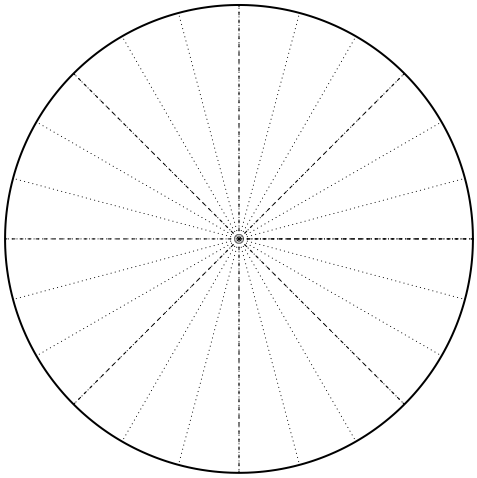


u12 Radians, Degrees, and Arc Length Practice (version 48)

2. On the circle below, draw a sketch of a **-600º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{-13\pi}{4}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

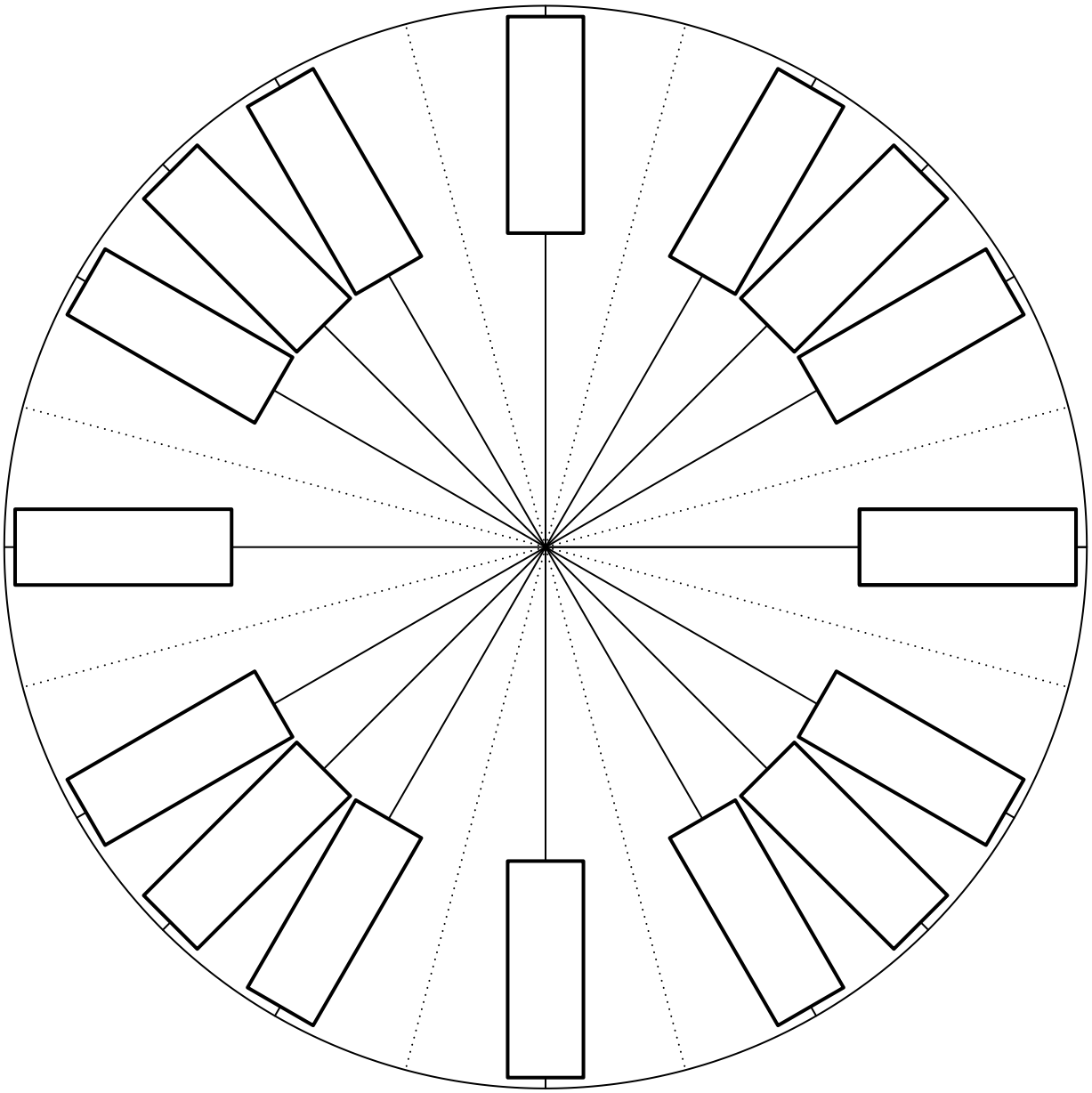


4. A circle is drawn with a radius of 6 meters. A central angle of θ radians is drawn, subtending an arc of length 24 meters. Find θ.

Name: Date:

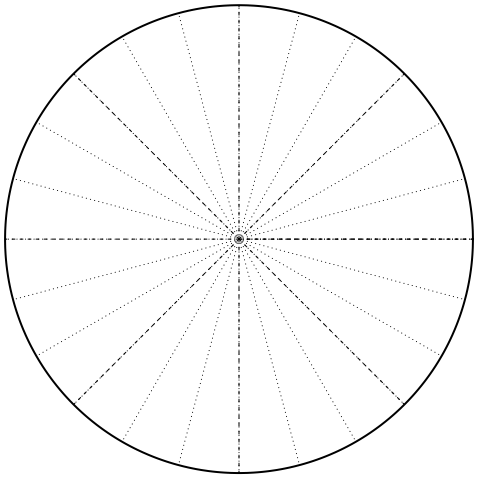
u12 Radians, Degrees, and Arc Length Practice (version 49)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

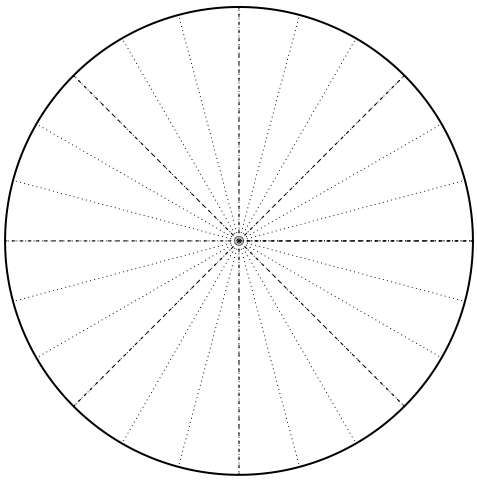


u12 Radians, Degrees, and Arc Length Practice (version 49)

2. On the circle below, draw a sketch of a **-1200º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{-7\pi}{2}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

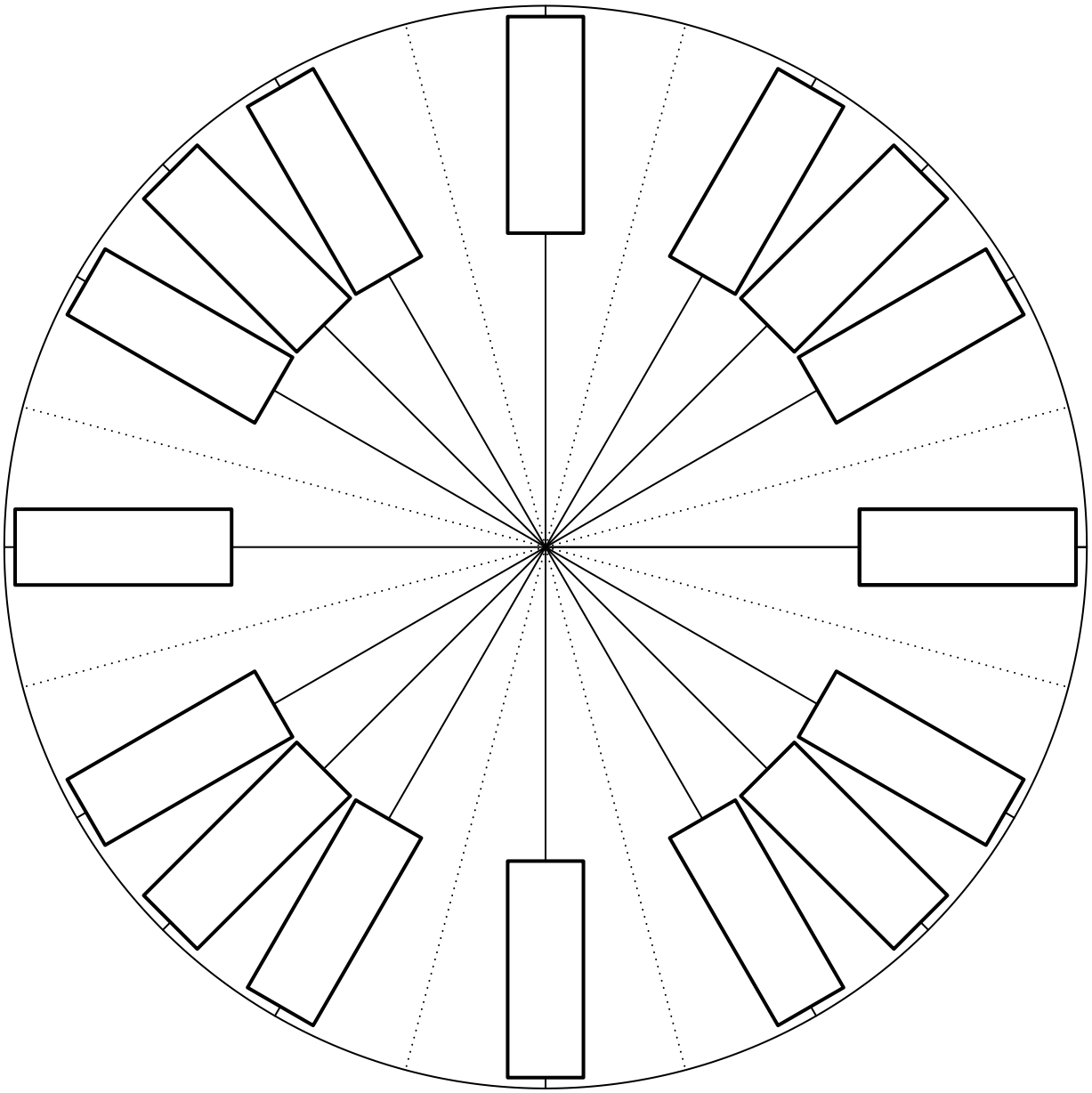


4. A circle, a central angle, and the subtended arc are drawn. The arc length is L meters. The central angle is 4 radians. The radius is 3 meters. Find L.

Name: Date:

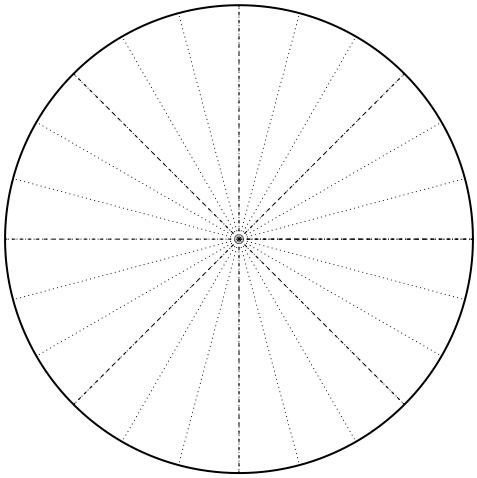
u12 Radians, Degrees, and Arc Length Practice (version 50)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

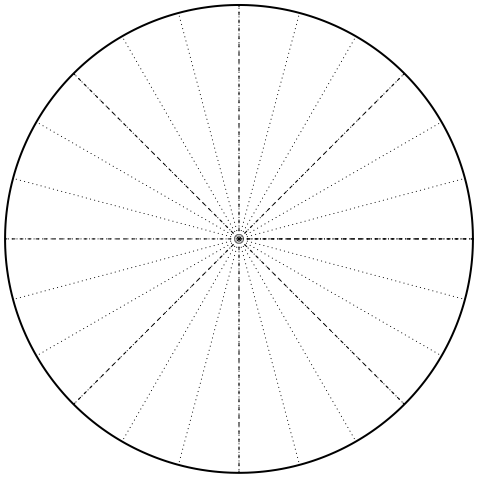


u12 Radians, Degrees, and Arc Length Practice (version 50)

2. On the circle below, draw a sketch of a **-1170°** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{25\pi}{4}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

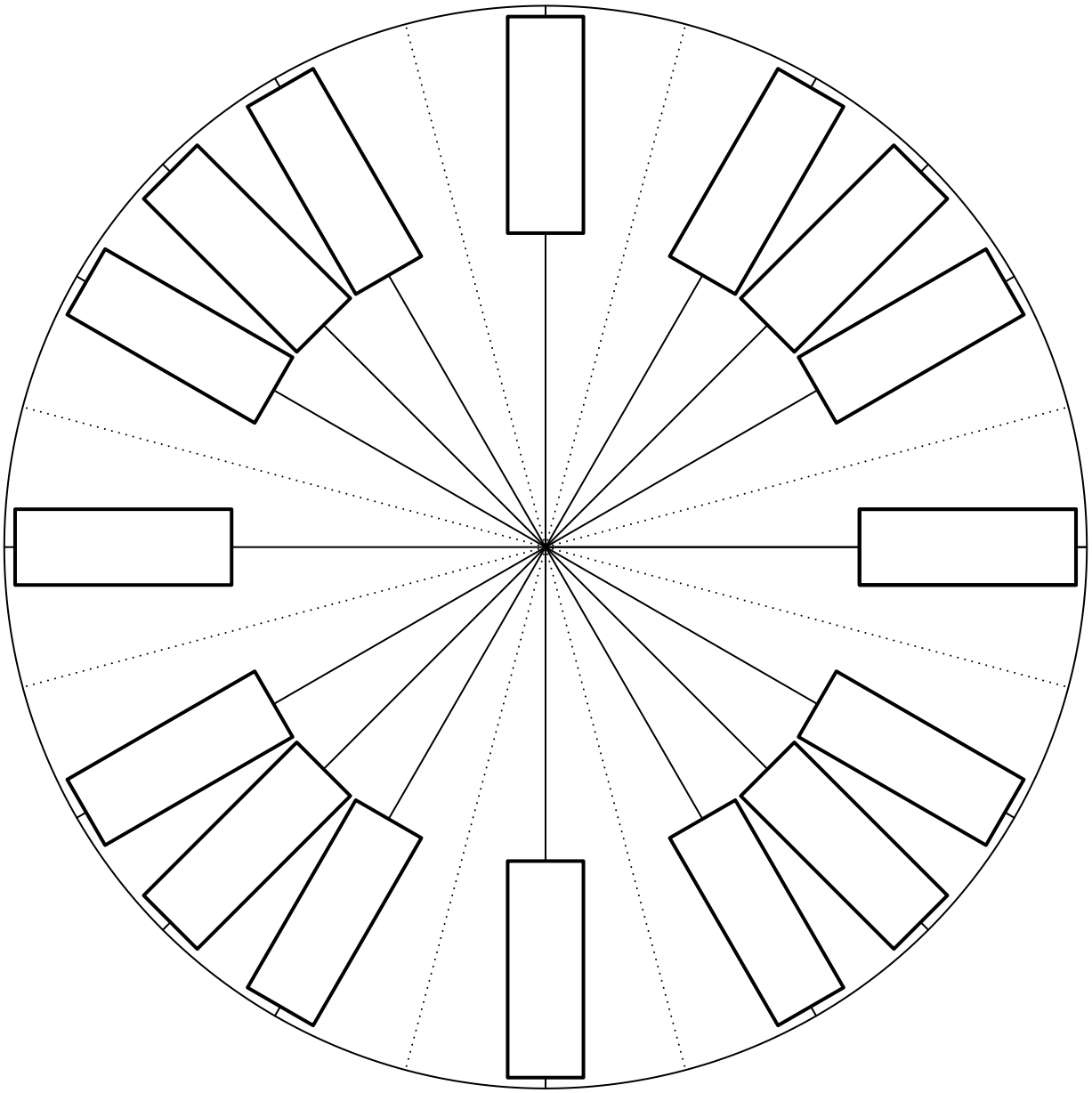


4. A circle, a central angle, and the subtended arc are drawn. The arc length is 20 meters. The central angle is θ radians. The radius is 4 meters. Find θ.

Name: Date:

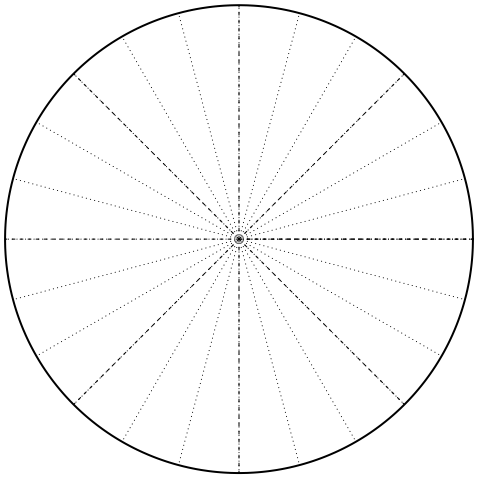
u12 Radians, Degrees, and Arc Length Practice (version 51)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

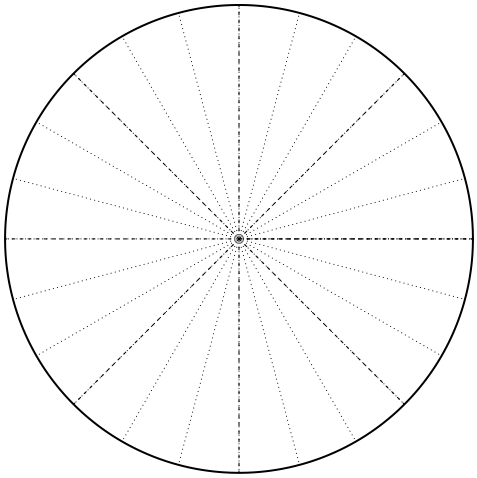


u12 Radians, Degrees, and Arc Length Practice (version 51)

2. On the circle below, draw a sketch of a **-1140°** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{-31\pi}{6}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

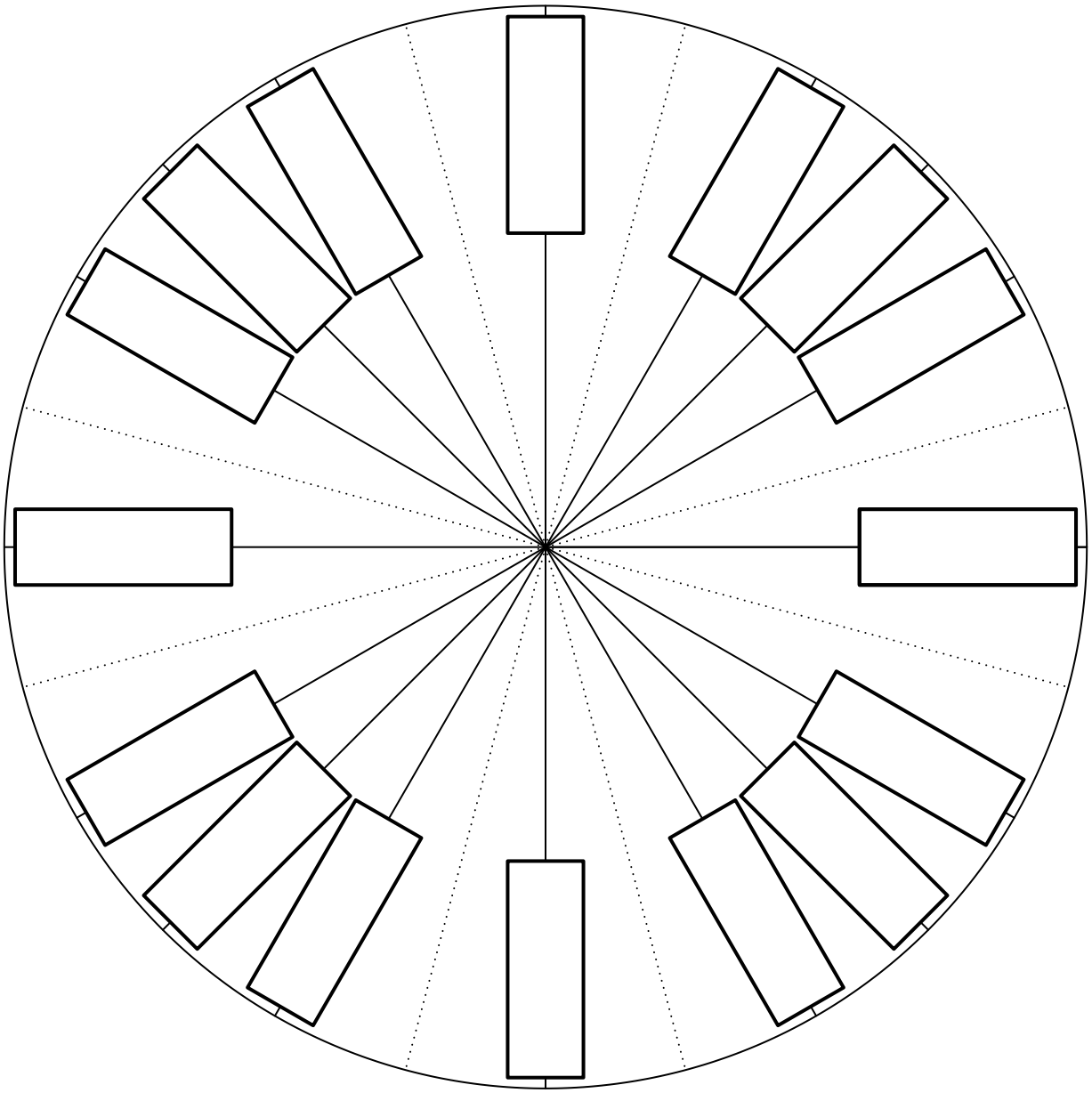


4. A circle is drawn with a central angle of 2 radians. The radius is r meters and the subtended arc length is 8 meters. Find r.

Name: Date:

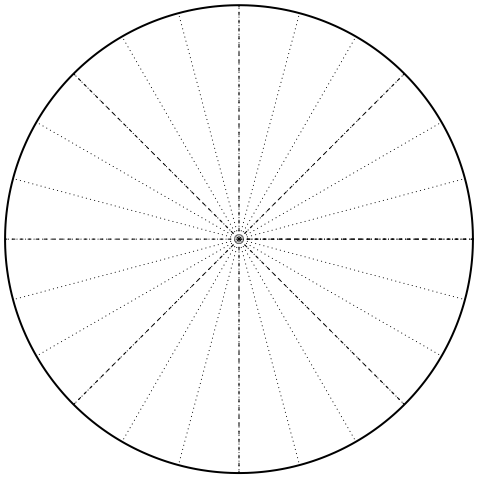
u12 Radians, Degrees, and Arc Length Practice (version 52)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

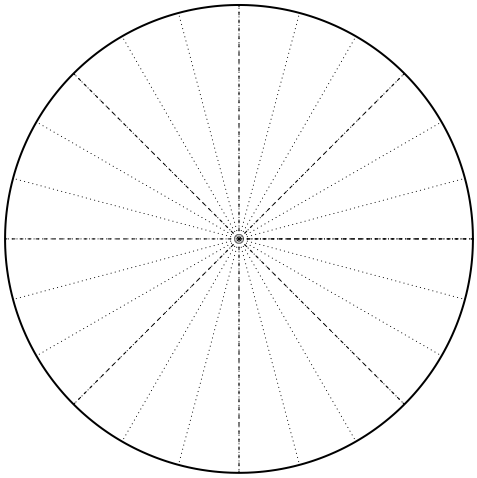


u12 Radians, Degrees, and Arc Length Practice (version 52)

2. On the circle below, draw a sketch of a **-1125º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{-43\pi}{6}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

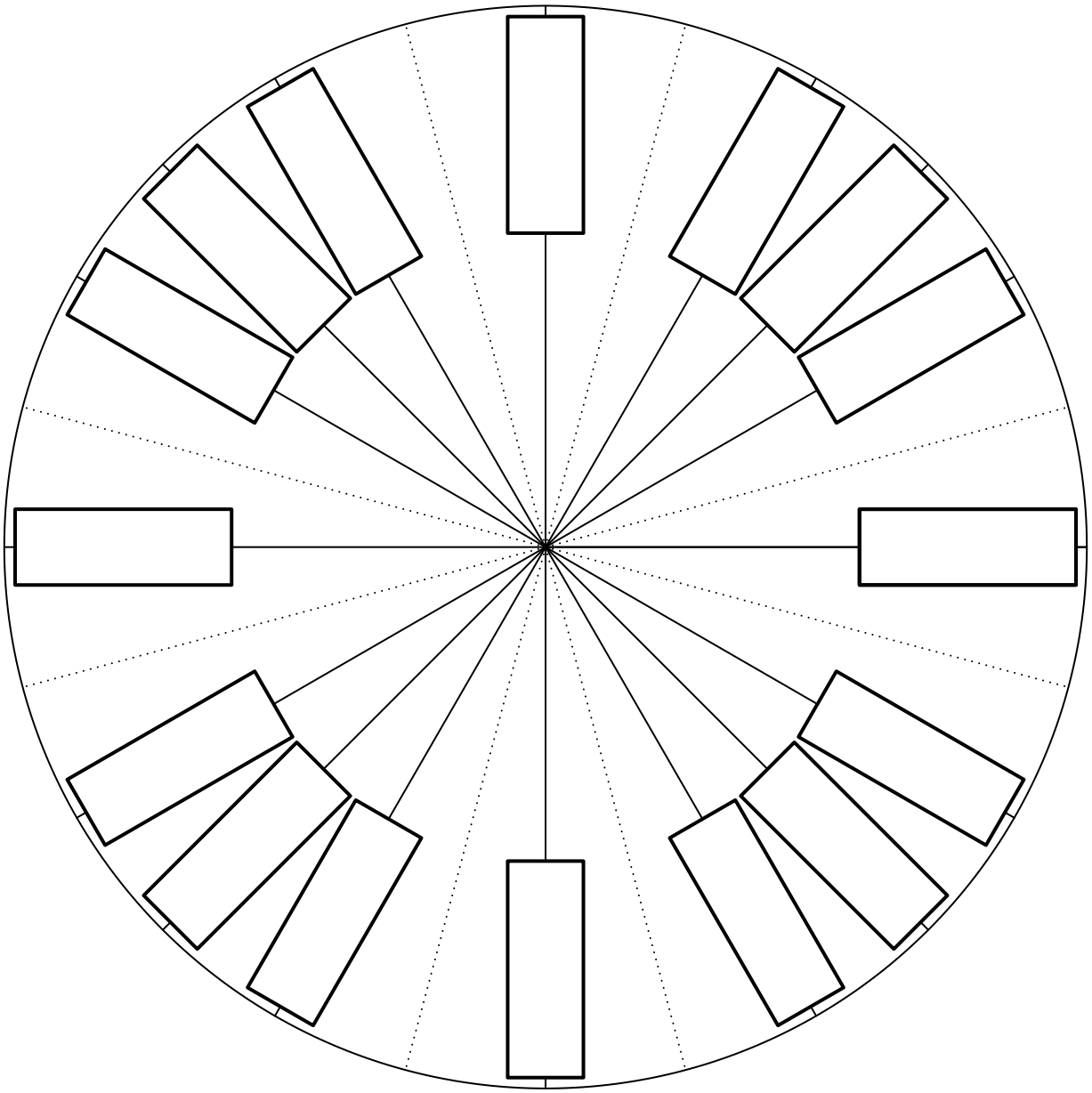


4. A circle, a central angle, and the subtended arc are drawn. The arc length is L meters. The central angle is 3 radians. The radius is 6 meters. Find L.

Name: Date:

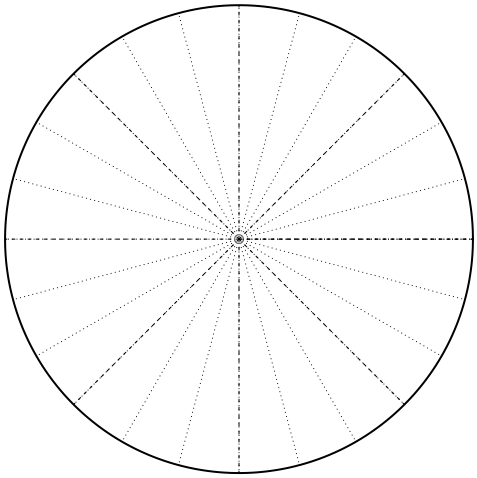
u12 Radians, Degrees, and Arc Length Practice (version 53)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

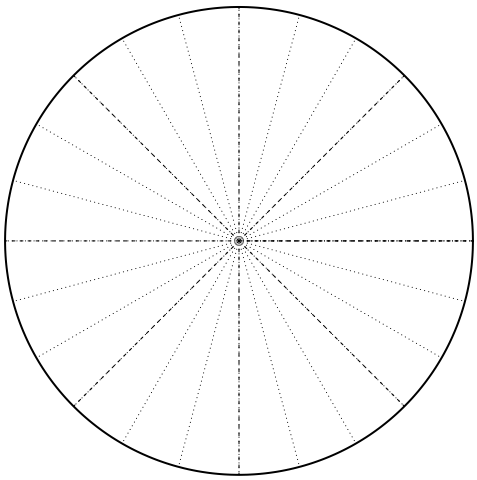


u12 Radians, Degrees, and Arc Length Practice (version 53)

2. On the circle below, draw a sketch of a **-930º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{19\pi}{6}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

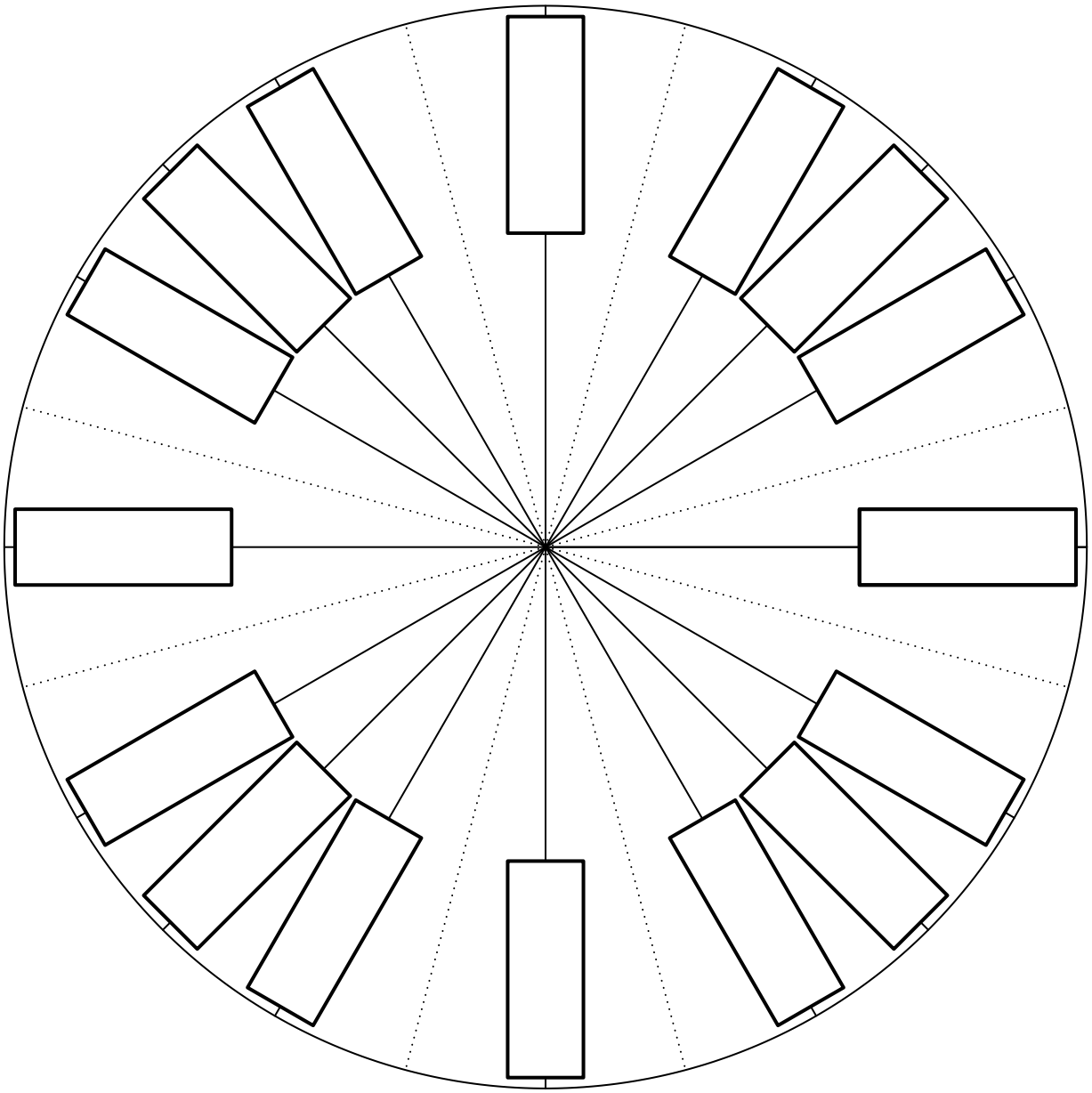


4. A circle is drawn with a radius of r meters. A central angle of 5 radians is drawn, subtending an arc of length 10 meters. Find r.

Name: Date:

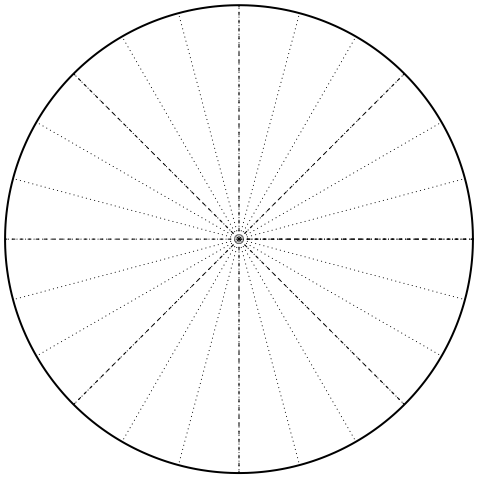
u12 Radians, Degrees, and Arc Length Practice (version 54)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

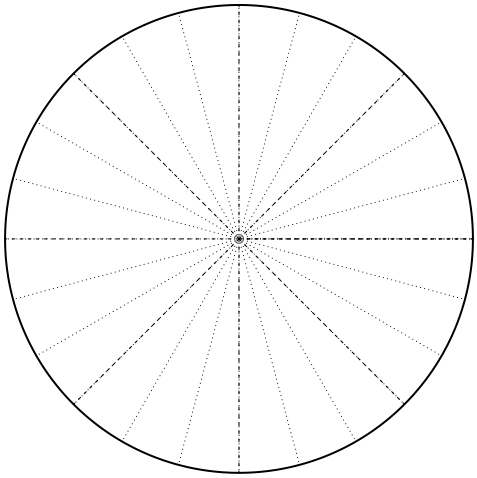


u12 Radians, Degrees, and Arc Length Practice (version 54)

2. On the circle below, draw a sketch of a **1230º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{-13\pi}{3}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

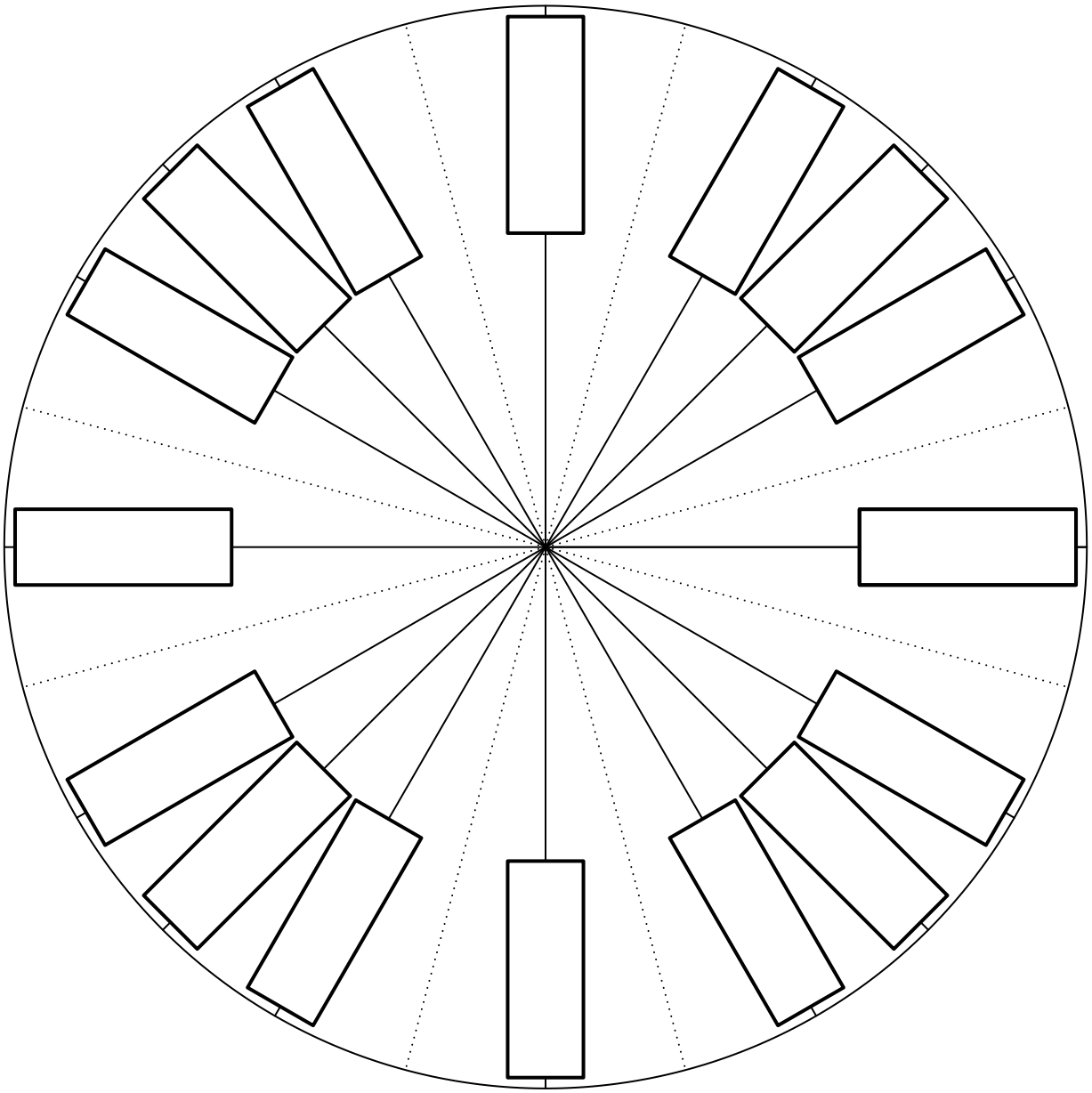


4. A circle, a central angle, and the subtended arc are drawn. The arc length is 15 meters. The central angle is 3 radians. The radius is r meters. Find r.

Name: Date:

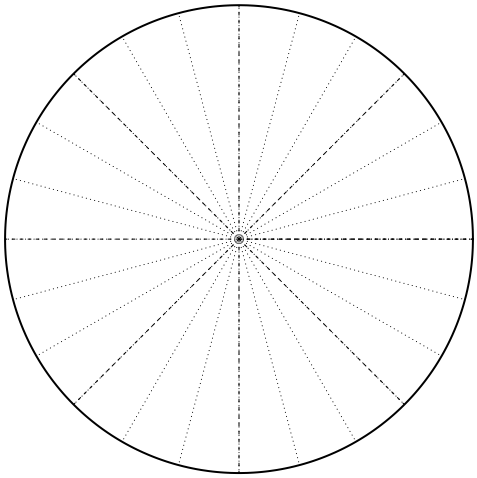
u12 Radians, Degrees, and Arc Length Practice (version 55)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

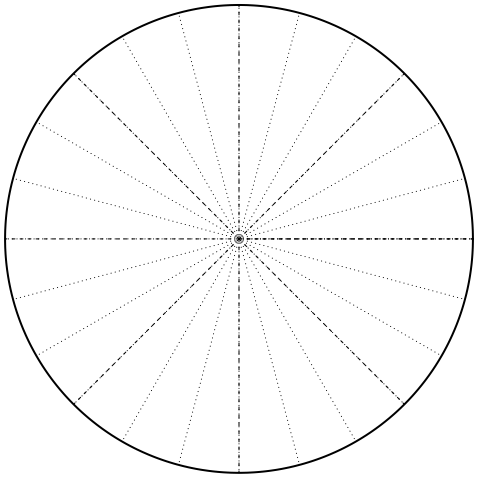


u12 Radians, Degrees, and Arc Length Practice (version 55)

2. On the circle below, draw a sketch of a **960º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{-31\pi}{4}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

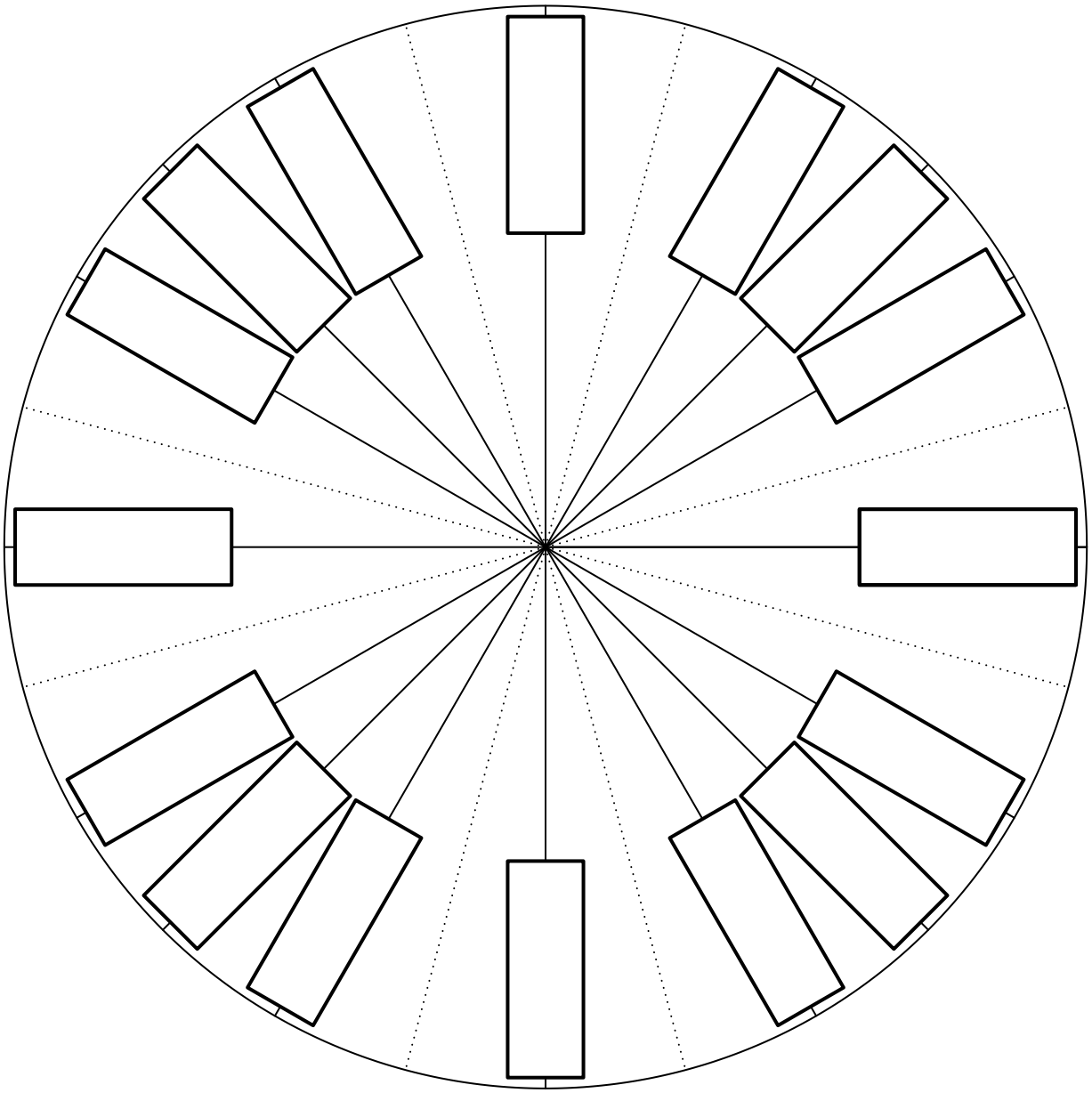


4. A circle is drawn with a radius of 5 meters. A central angle of θ radians is drawn, subtending an arc of length 30 meters. Find θ.

Name: Date:

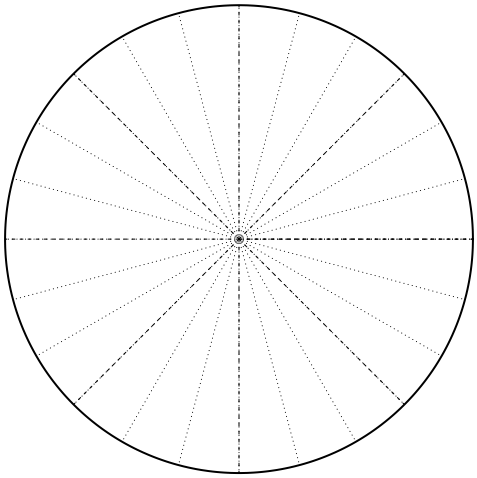
u12 Radians, Degrees, and Arc Length Practice (version 56)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

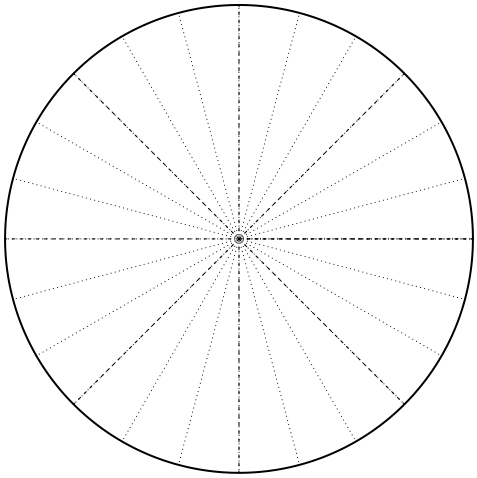


u12 Radians, Degrees, and Arc Length Practice (version 56)

2. On the circle below, draw a sketch of a **-420º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{-19\pi}{4}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

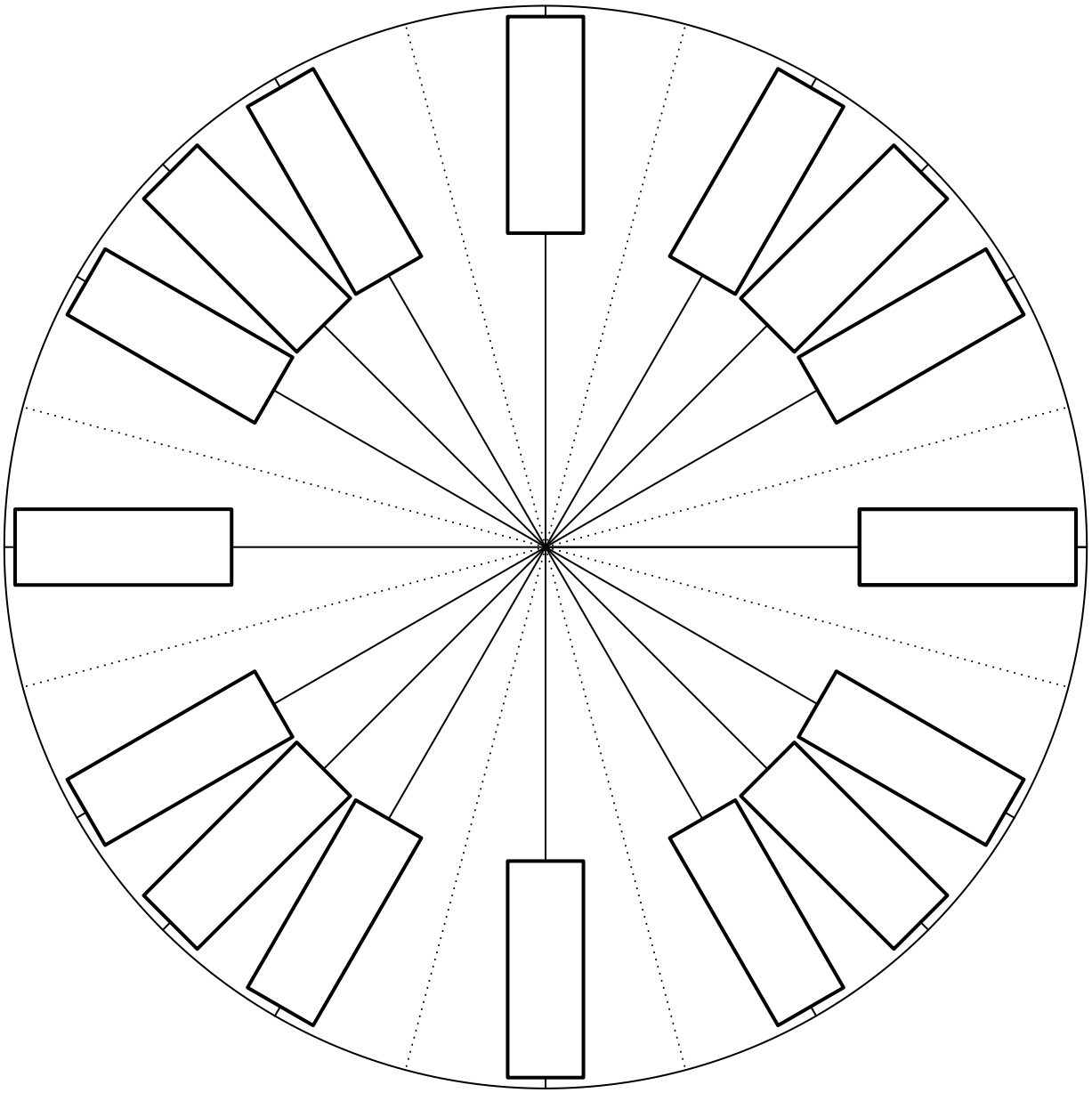


4. A circle is drawn with a central angle of 4 radians. The radius is 6 meters and the subtended arc length is L meters. Find L.

Name: Date:

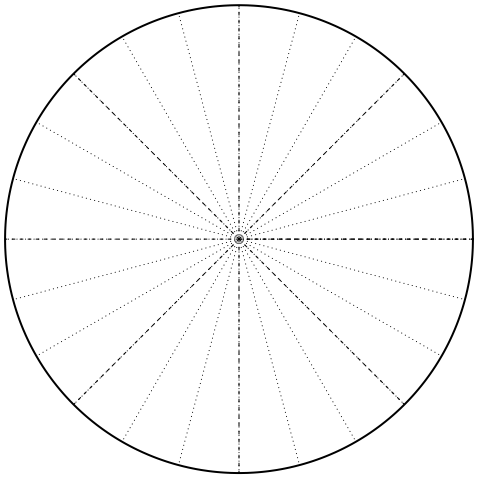
u12 Radians, Degrees, and Arc Length Practice (version 57)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

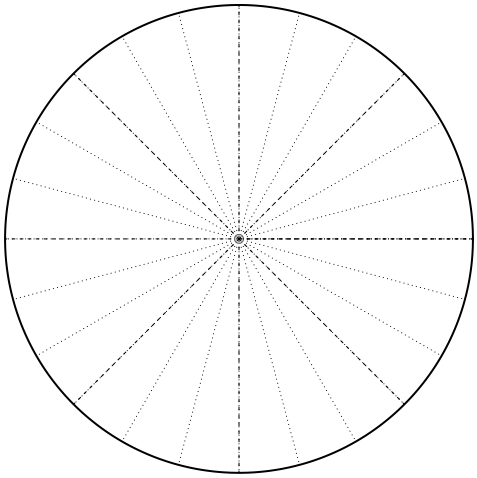


u12 Radians, Degrees, and Arc Length Practice (version 57)

2. On the circle below, draw a sketch of a **750°** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{13\pi}{2}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

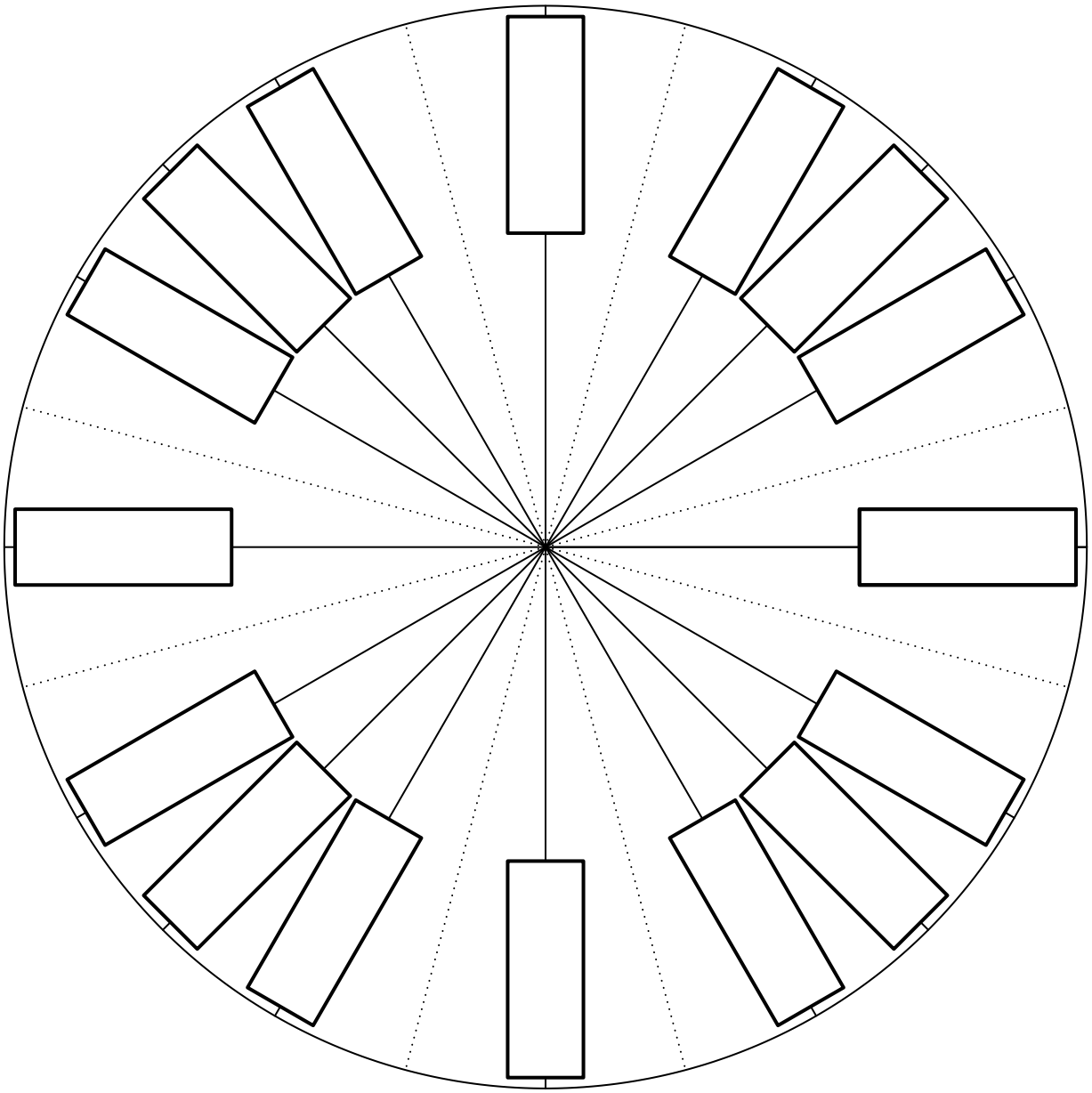


4. A circle is drawn with a radius of r meters. A central angle of 2 radians is drawn, subtending an arc of length 8 meters. Find r.

Name: Date:

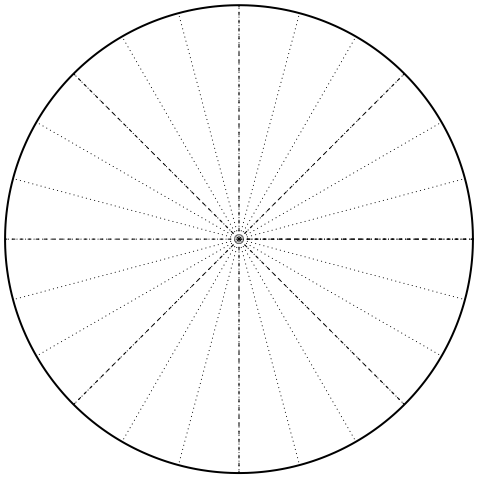
u12 Radians, Degrees, and Arc Length Practice (version 58)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

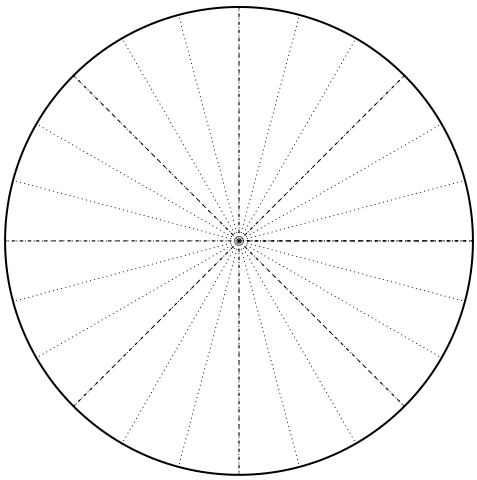


u12 Radians, Degrees, and Arc Length Practice (version 58)

2. On the circle below, draw a sketch of a **1395º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{-17\pi}{4}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

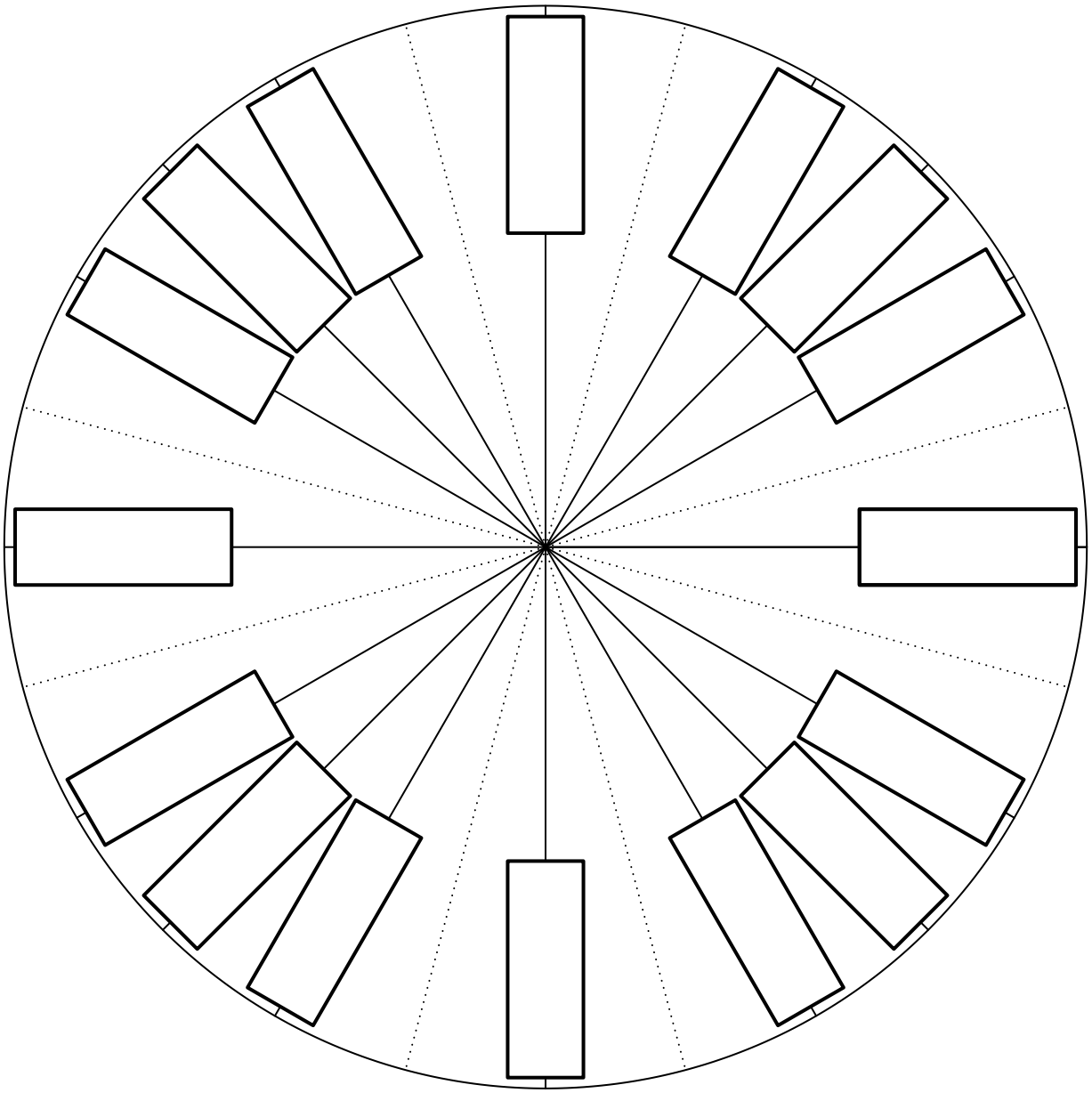


4. A circle, a central angle, and the subtended arc are drawn. The arc length is 30 meters. The central angle is 6 radians. The radius is r meters. Find r.

Name: Date:

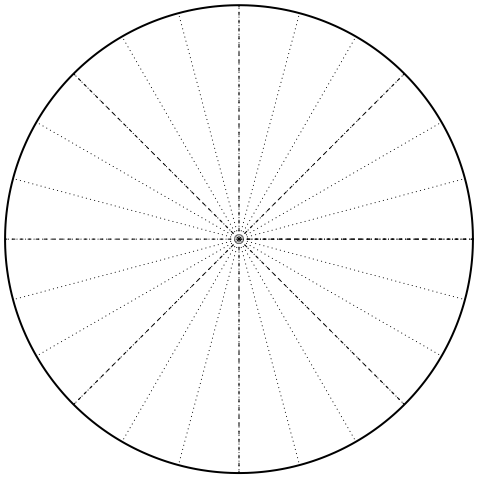
u12 Radians, Degrees, and Arc Length Practice (version 59)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

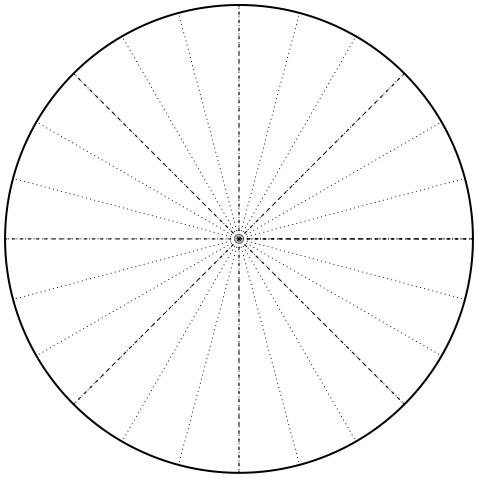


u12 Radians, Degrees, and Arc Length Practice (version 59)

2. On the circle below, draw a sketch of a **-1305º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{-41\pi}{6}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

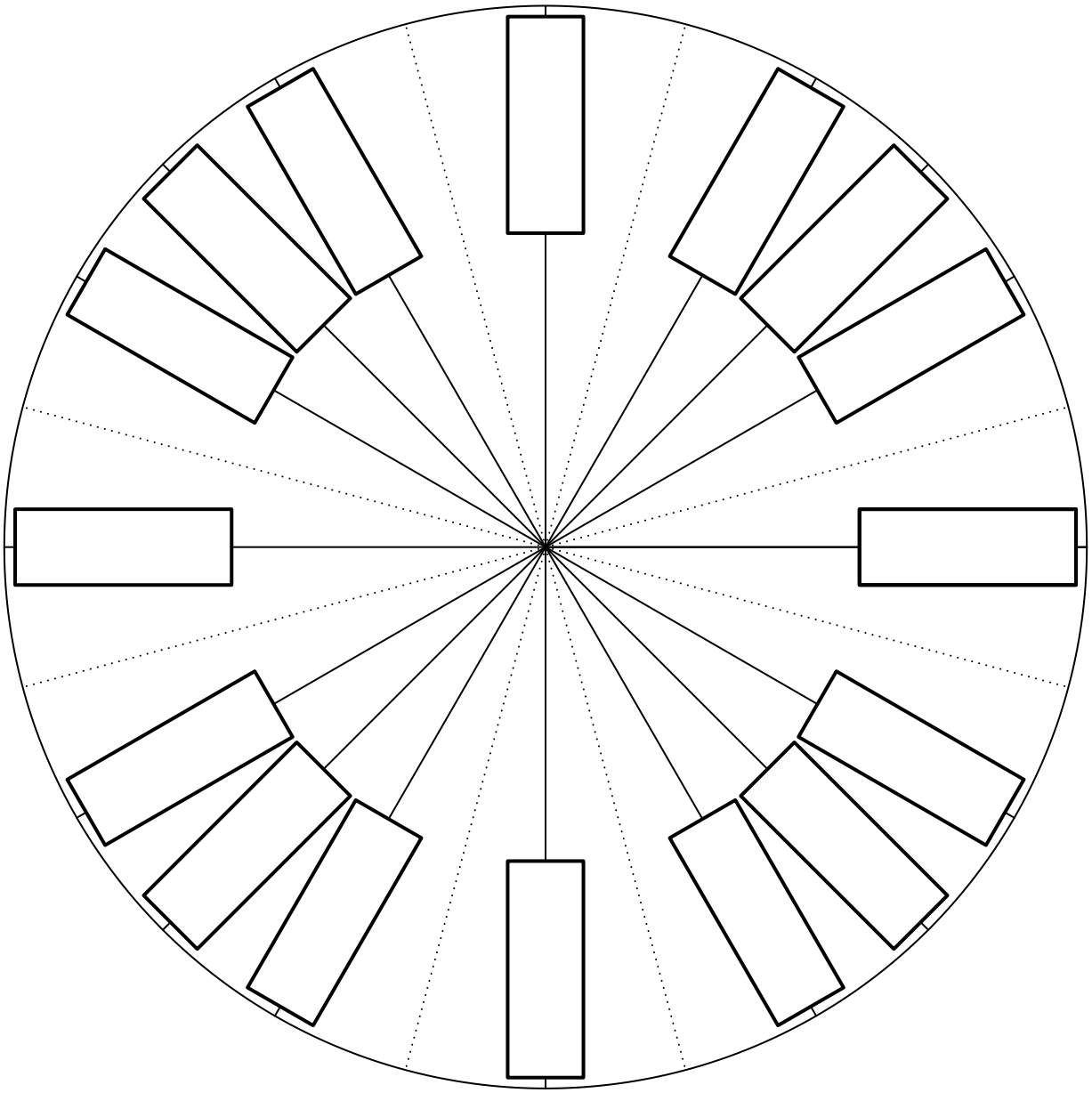


4. A circle, a central angle, and the subtended arc are drawn. The arc length is 12 meters. The central angle is 3 radians. The radius is r meters. Find r.

Name: Date:

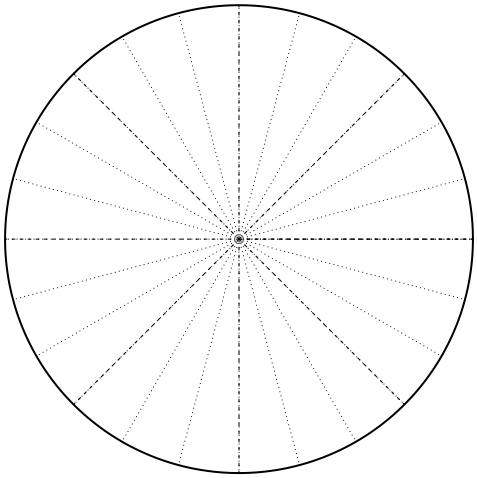
u12 Radians, Degrees, and Arc Length Practice (version 60)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

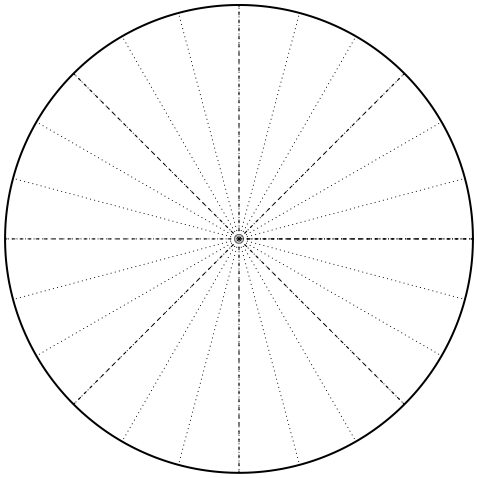


u12 Radians, Degrees, and Arc Length Practice (version 60)

2. On the circle below, draw a sketch of a **-1125º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{9\pi}{2}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

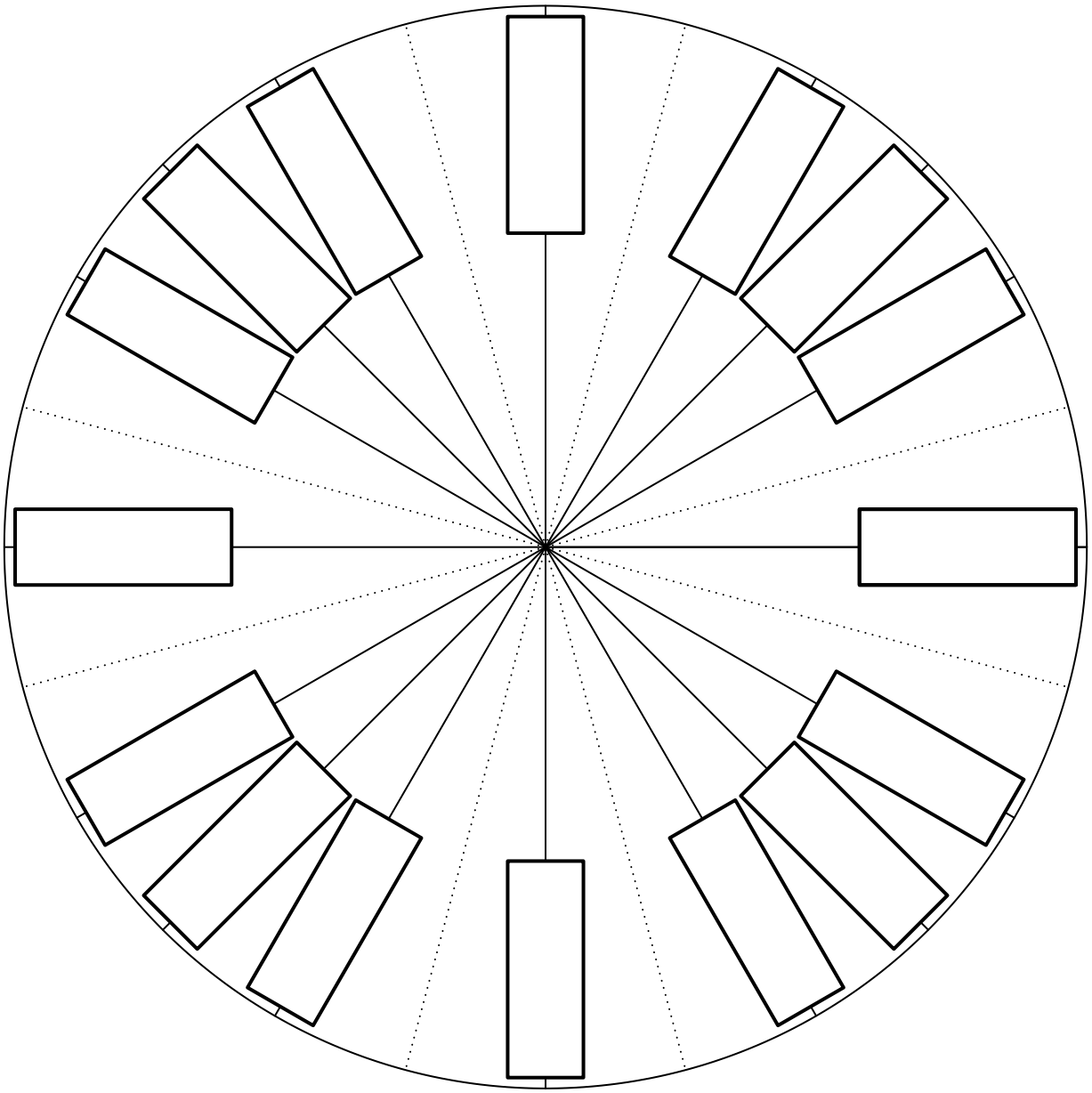


4. A circle is drawn with a central angle of θ radians. The radius is 4 meters and the subtended arc length is 12 meters. Find θ.

Name: Date:

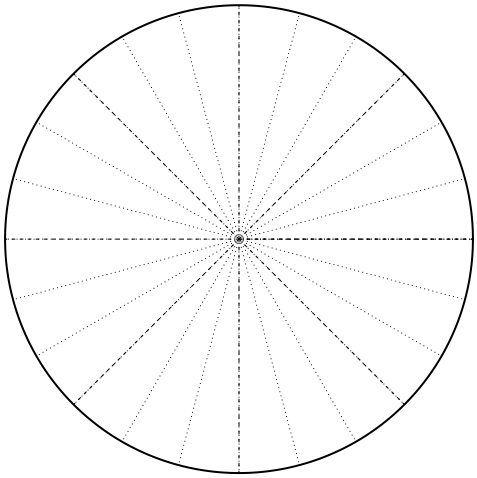
u12 Radians, Degrees, and Arc Length Practice (version 61)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

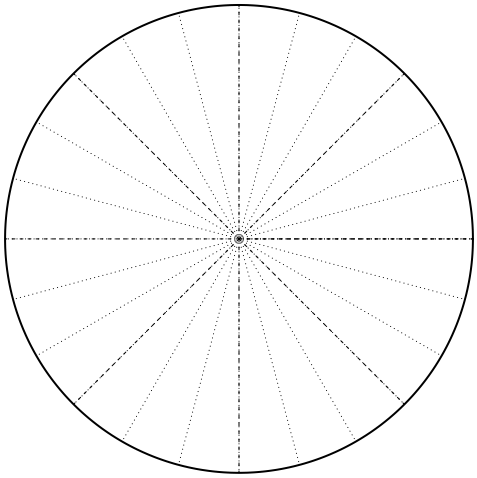


u12 Radians, Degrees, and Arc Length Practice (version 61)

2. On the circle below, draw a sketch of a **1230º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{21\pi}{4}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

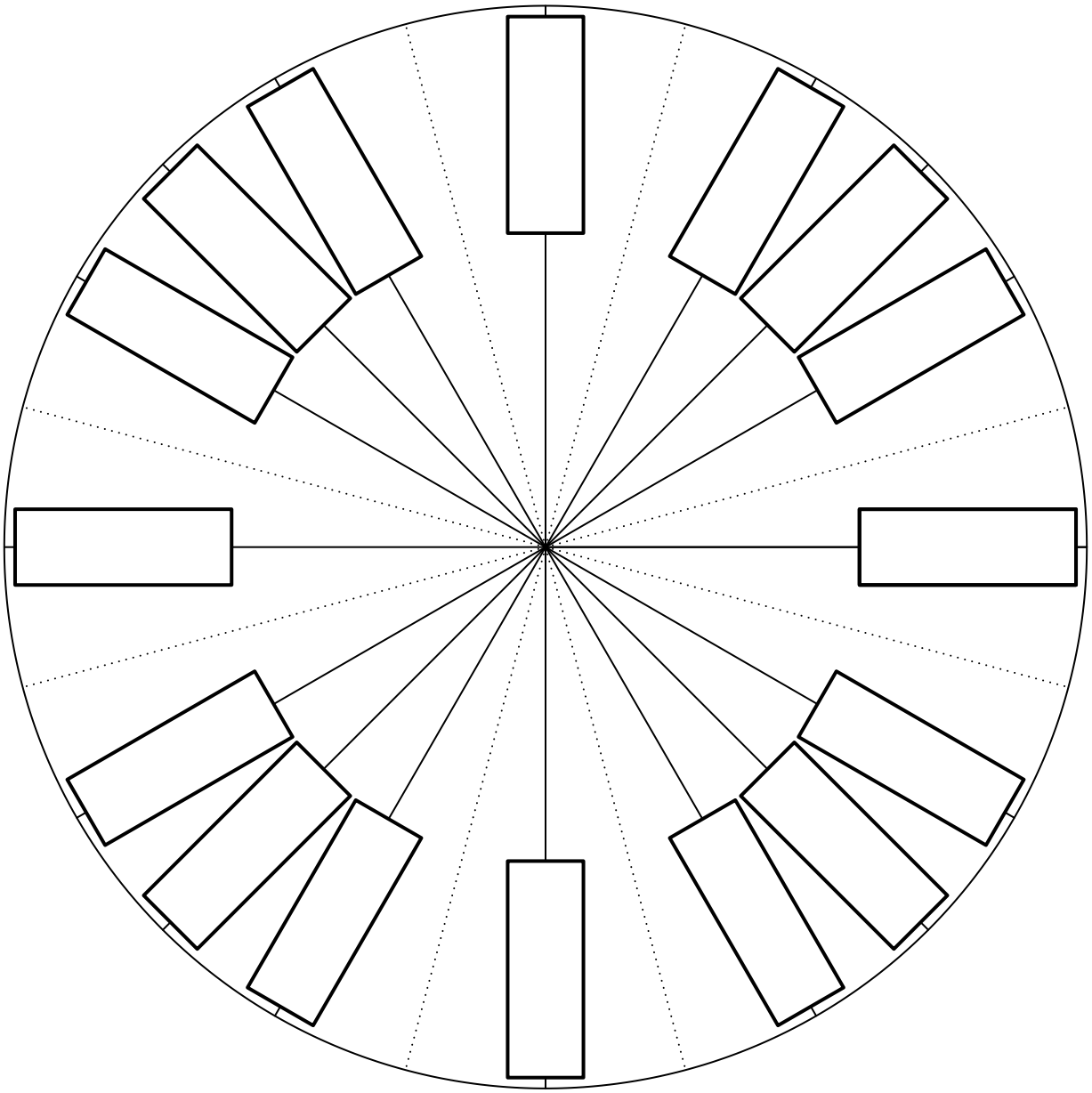


4. A circle is drawn with a radius of 3 meters. A central angle of θ radians is drawn, subtending an arc of length 12 meters. Find θ.

Name: Date:

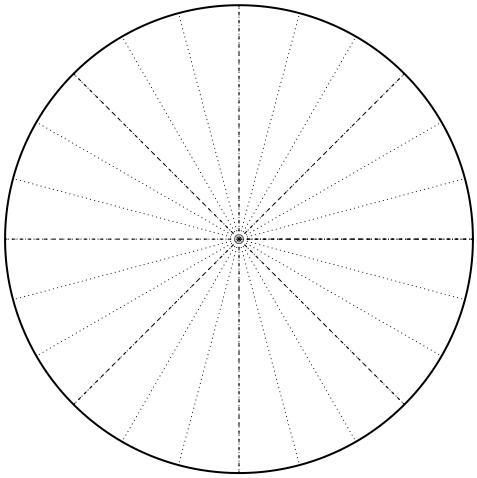
u12 Radians, Degrees, and Arc Length Practice (version 62)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

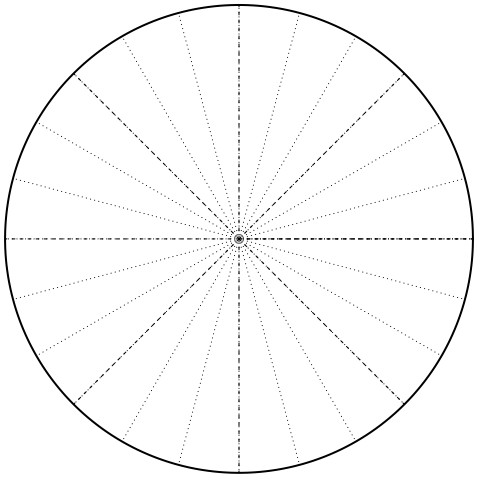


u12 Radians, Degrees, and Arc Length Practice (version 62)

2. On the circle below, draw a sketch of a **-990º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{20\pi}{3}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

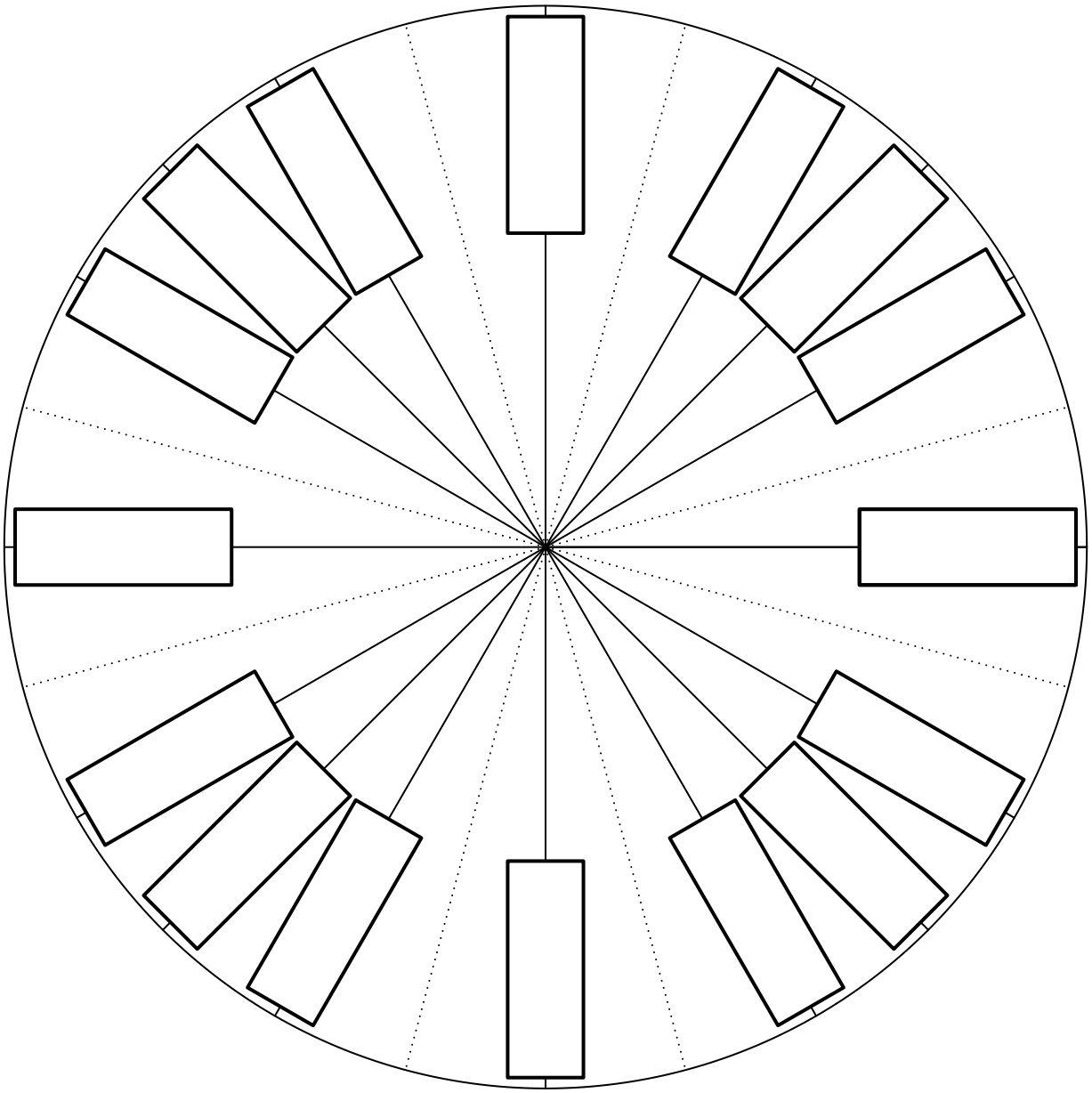


4. A circle is drawn with a radius of 6 meters. A central angle of 2 radians is drawn, subtending an arc of length L meters. Find L.

Name: Date:

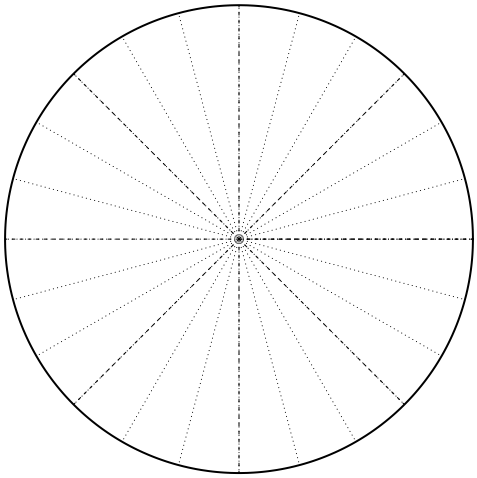
u12 Radians, Degrees, and Arc Length Practice (version 63)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

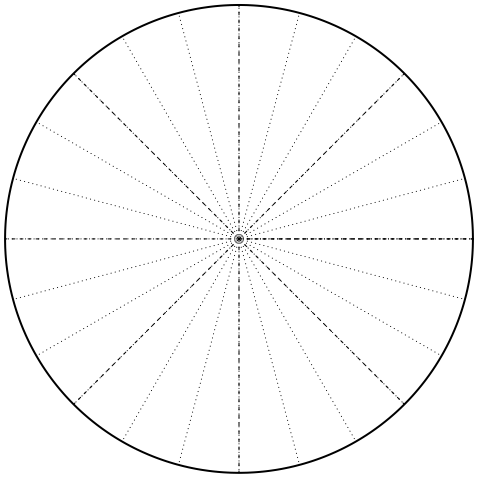


u12 Radians, Degrees, and Arc Length Practice (version 63)

2. On the circle below, draw a sketch of a **-1320º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{-8\pi}{3}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

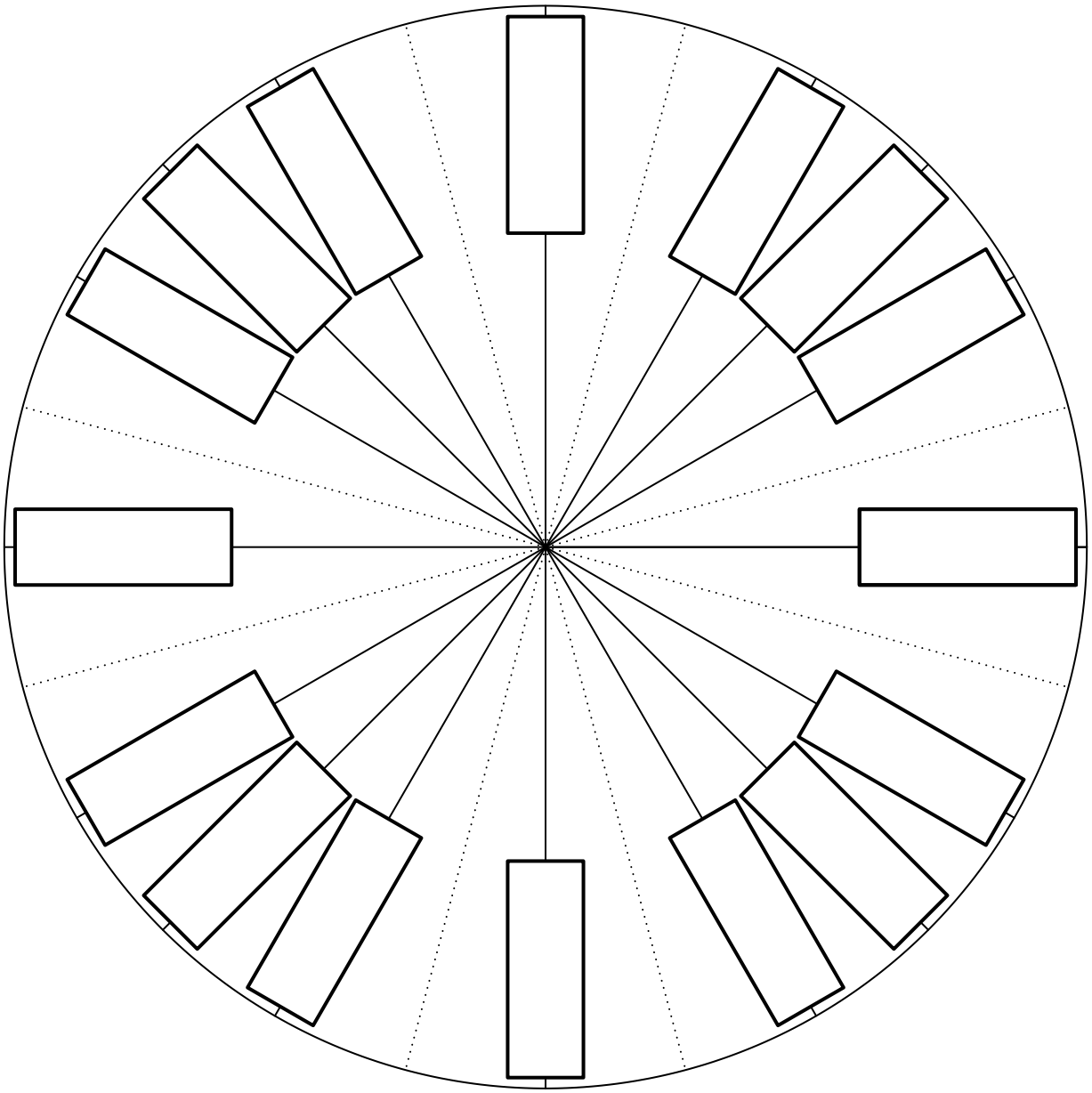


4. A circle, a central angle, and the subtended arc are drawn. The arc length is 8 meters. The central angle is 2 radians. The radius is r meters. Find r.

Name: Date:

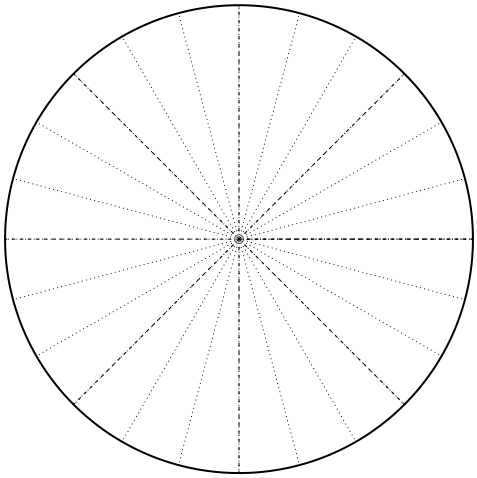
u12 Radians, Degrees, and Arc Length Practice (version 64)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

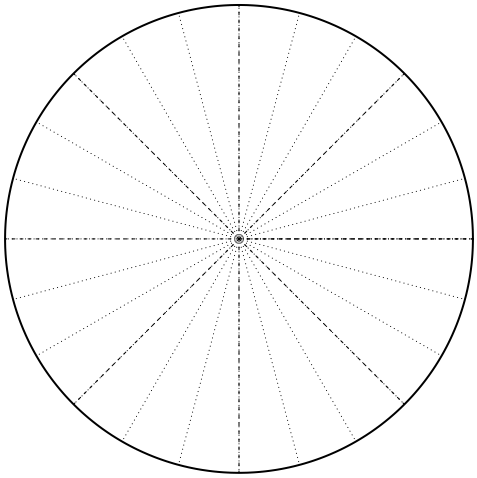


u12 Radians, Degrees, and Arc Length Practice (version 64)

2. On the circle below, draw a sketch of a **-1200º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{11\pi}{4}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

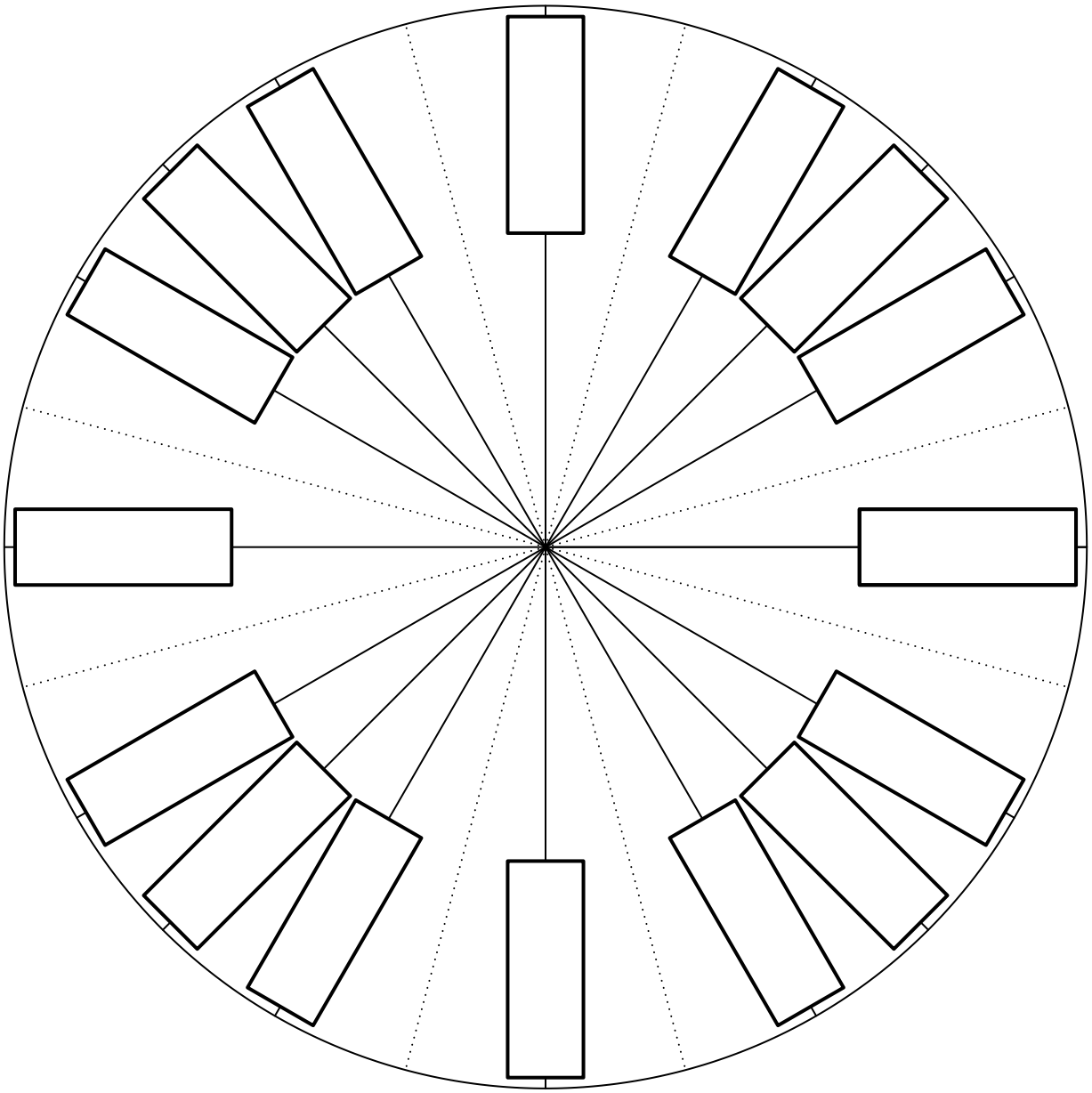


4. A circle is drawn with a radius of r meters. A central angle of 3 radians is drawn, subtending an arc of length 18 meters. Find r.

Name: Date:

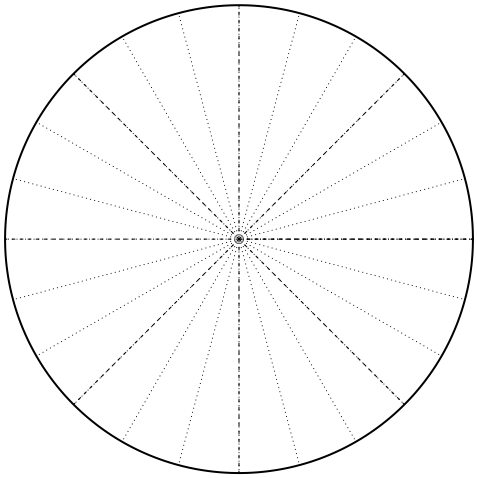
u12 Radians, Degrees, and Arc Length Practice (version 65)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

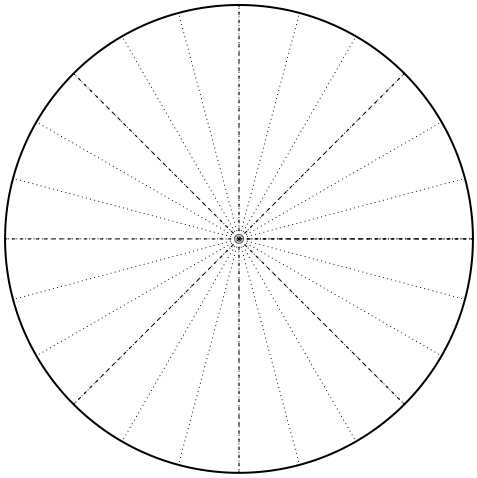


u12 Radians, Degrees, and Arc Length Practice (version 65)

2. On the circle below, draw a sketch of a **-780º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{-31\pi}{6}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

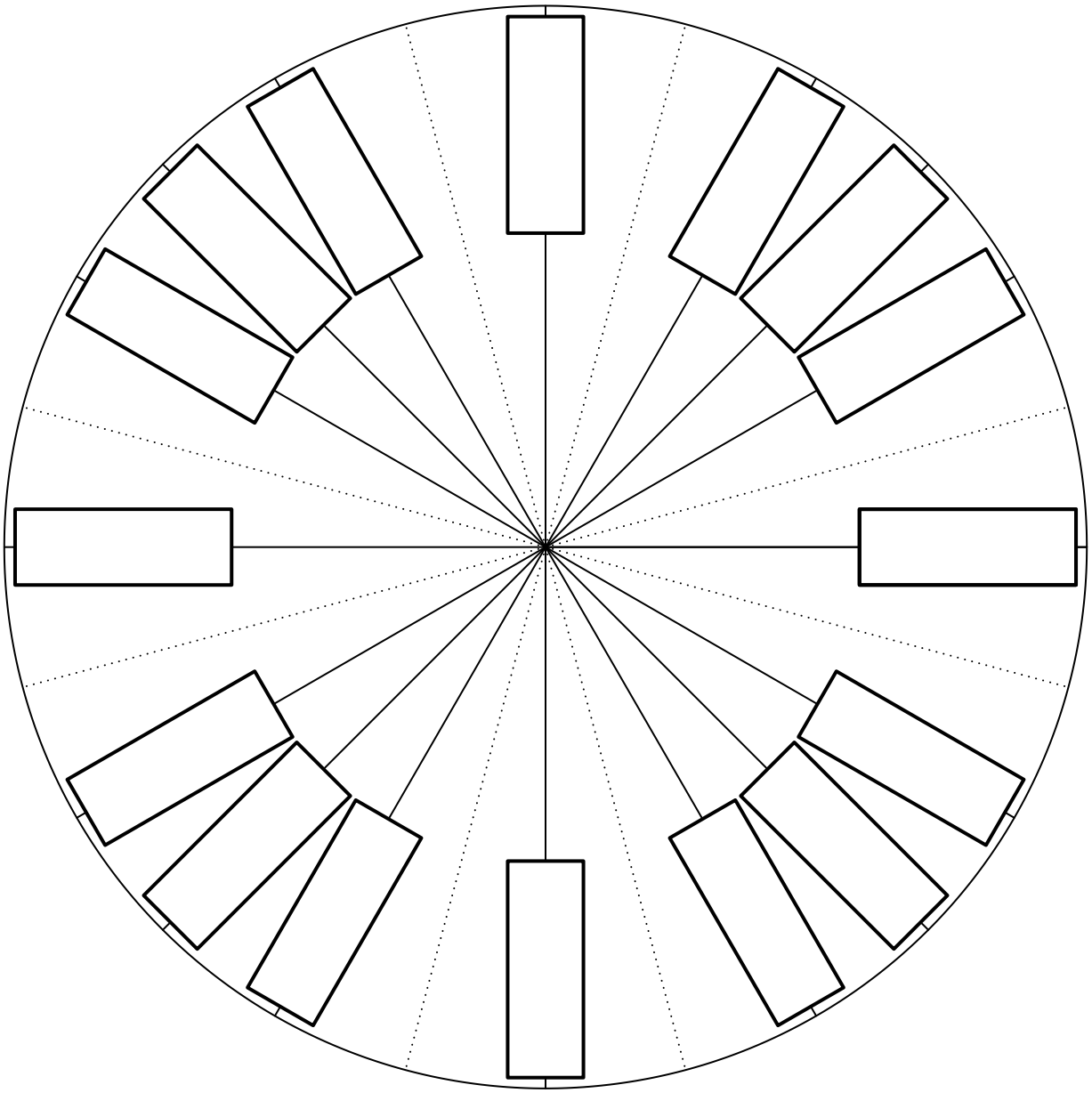


4. A circle is drawn with a radius of r meters. A central angle of 6 radians is drawn, subtending an arc of length 18 meters. Find r.

Name: Date:

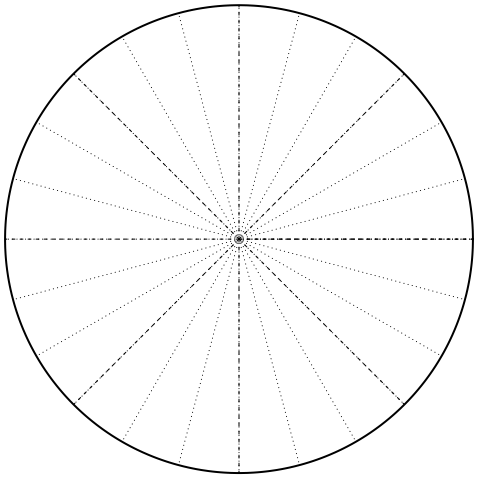
u12 Radians, Degrees, and Arc Length Practice (version 66)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

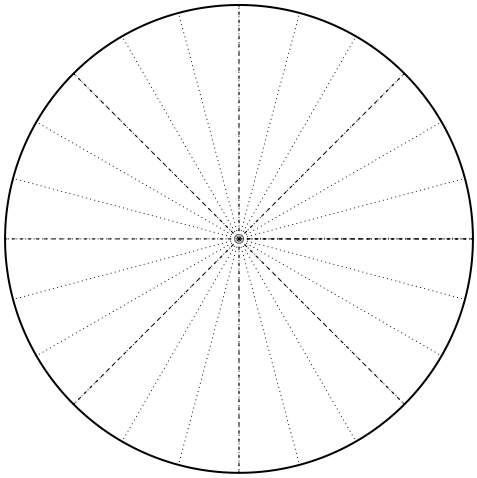


u12 Radians, Degrees, and Arc Length Practice (version 66)

2. On the circle below, draw a sketch of a **-510º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{-23\pi}{4}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

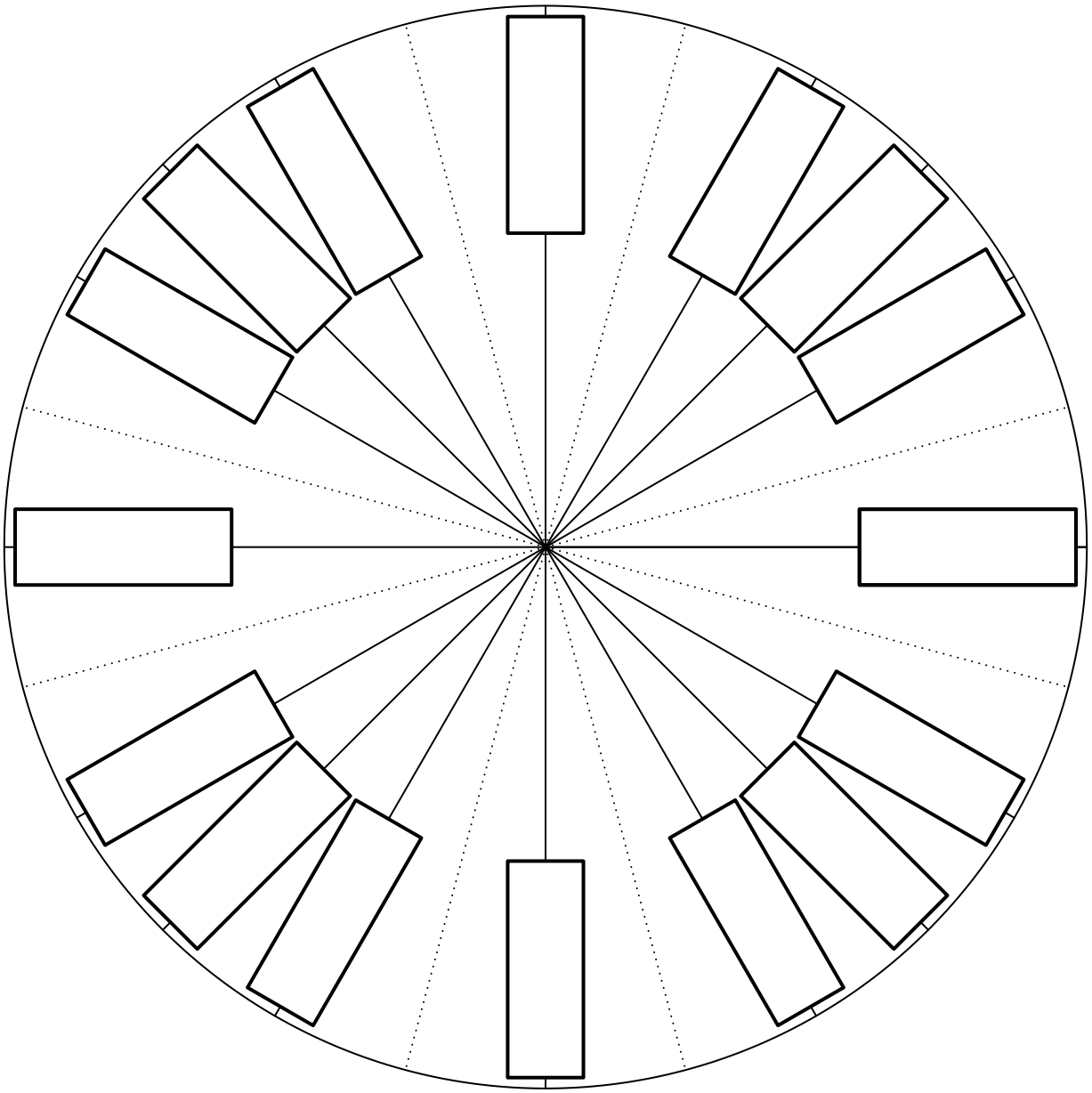


4. A circle is drawn with a radius of 4 meters. A central angle of θ radians is drawn, subtending an arc of length 20 meters. Find θ.

Name: Date:

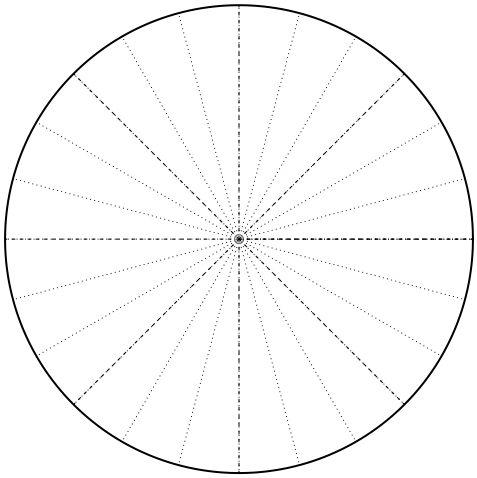
u12 Radians, Degrees, and Arc Length Practice (version 67)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

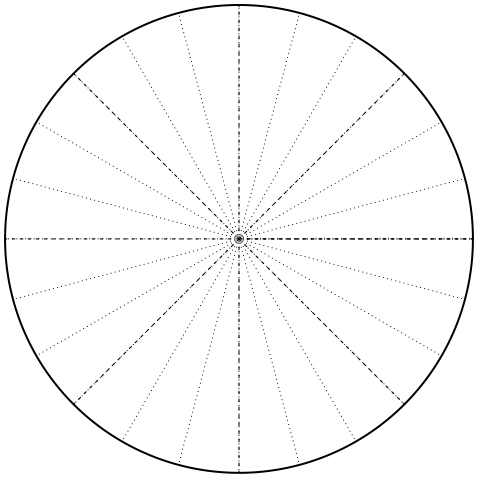


u12 Radians, Degrees, and Arc Length Practice (version 67)

2. On the circle below, draw a sketch of a **1350º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{-23\pi}{6}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

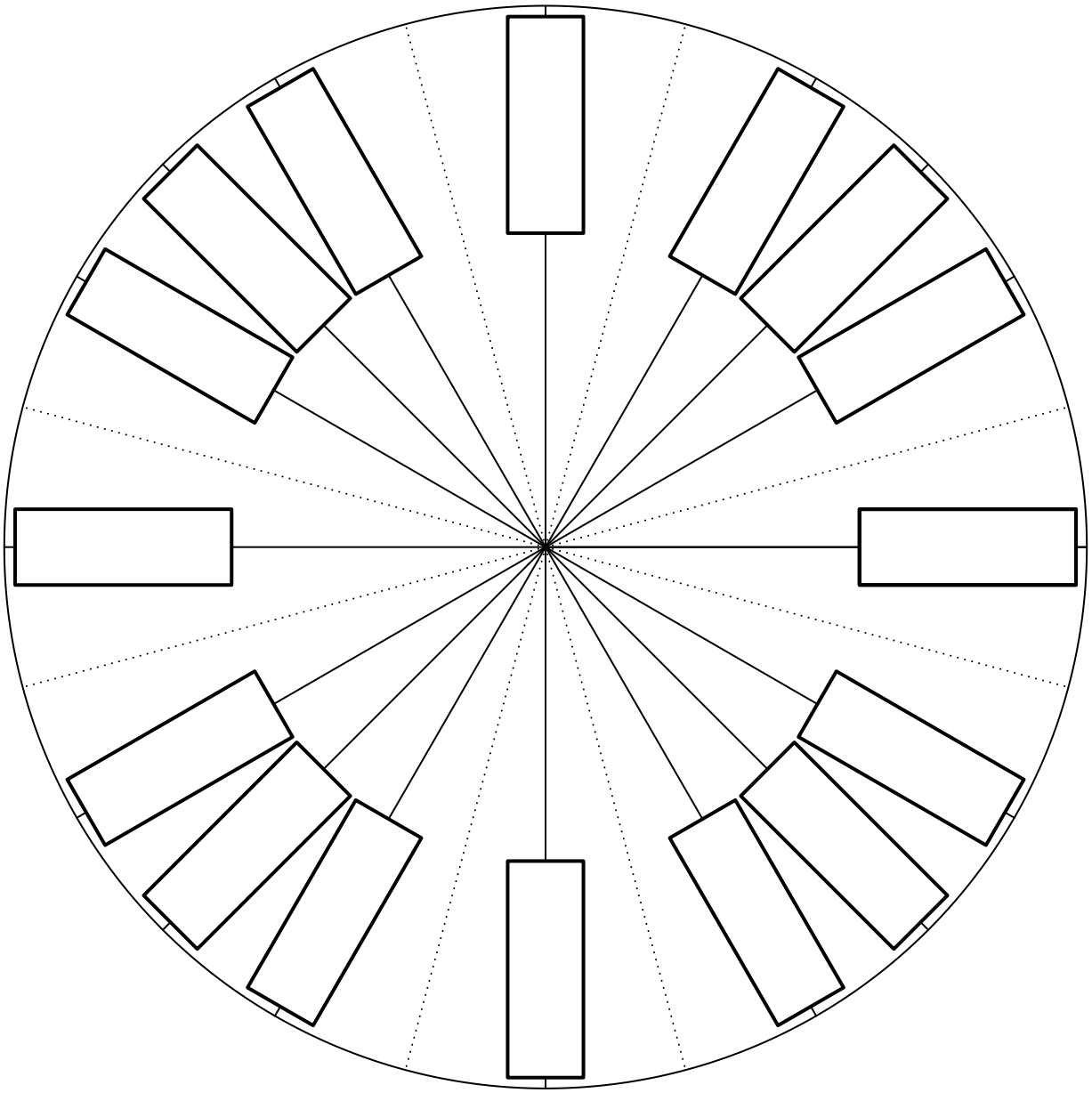


4. A circle is drawn with a radius of 6 meters. A central angle of θ radians is drawn, subtending an arc of length 12 meters. Find θ.

Name: Date:

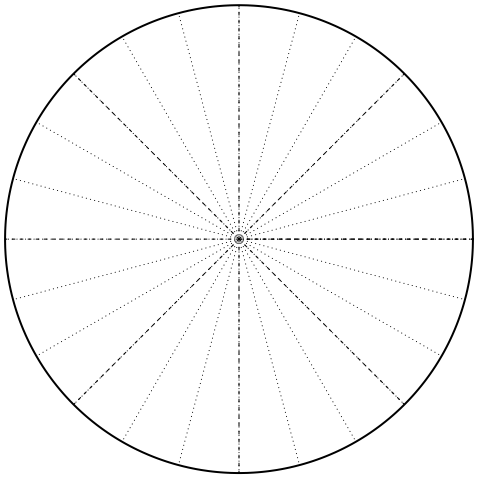
u12 Radians, Degrees, and Arc Length Practice (version 68)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

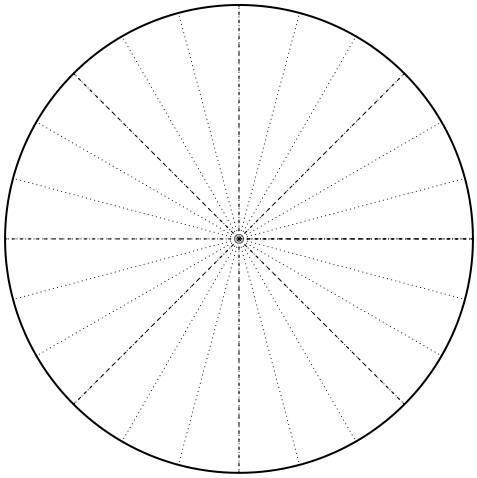


u12 Radians, Degrees, and Arc Length Practice (version 68)

2. On the circle below, draw a sketch of a **-480º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{27\pi}{4}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

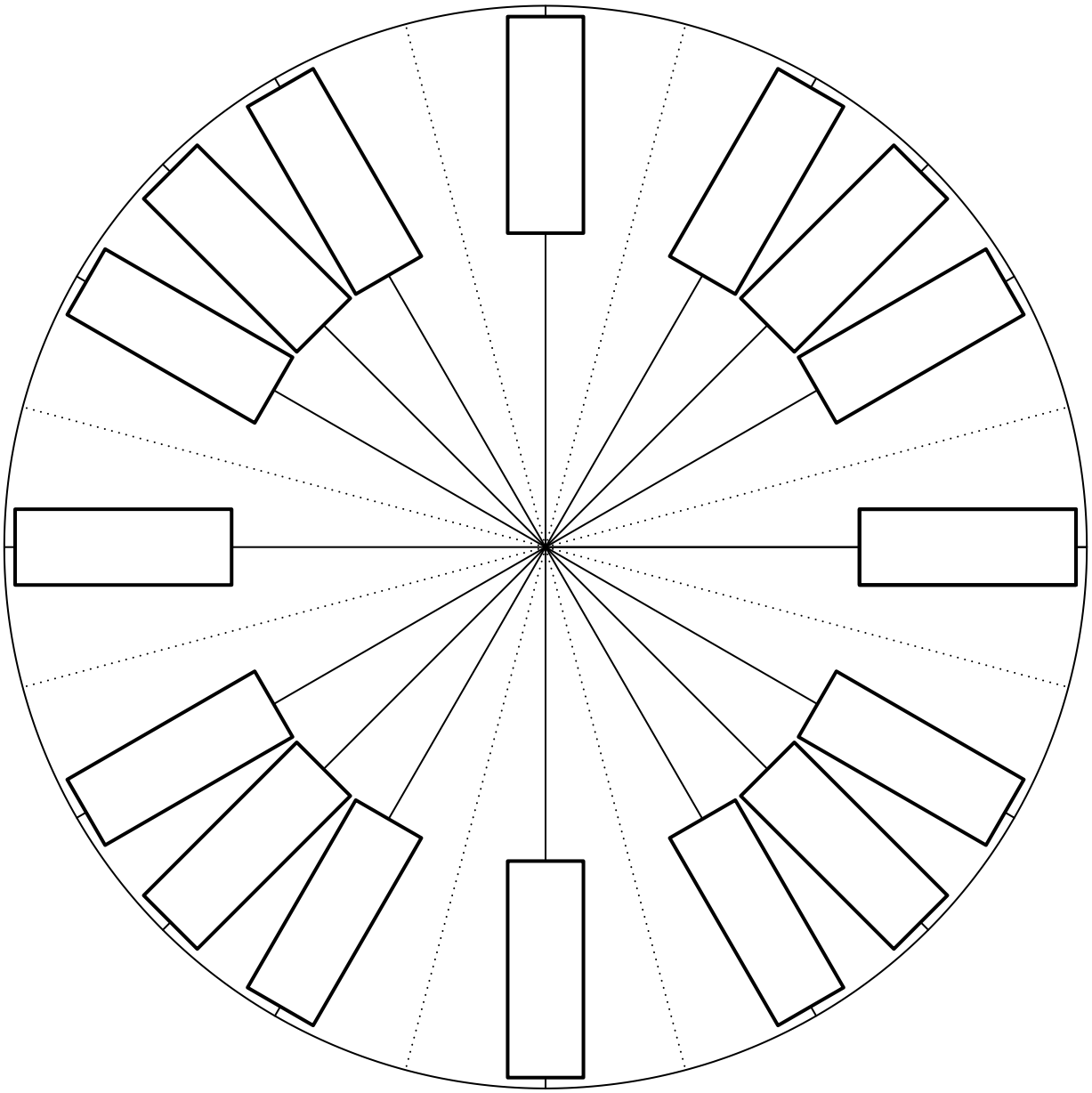


4. A circle, a central angle, and the subtended arc are drawn. The arc length is 8 meters. The central angle is θ radians. The radius is 2 meters. Find θ.

Name: Date:

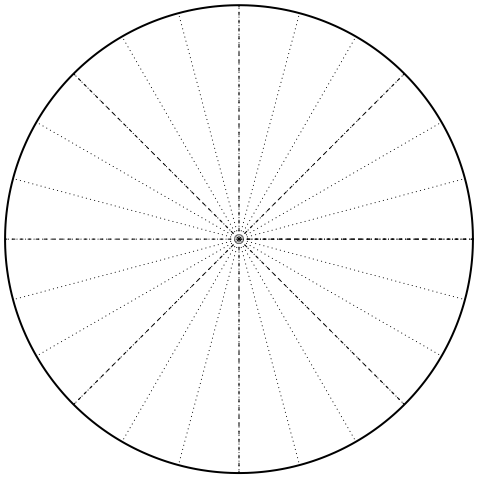
u12 Radians, Degrees, and Arc Length Practice (version 69)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

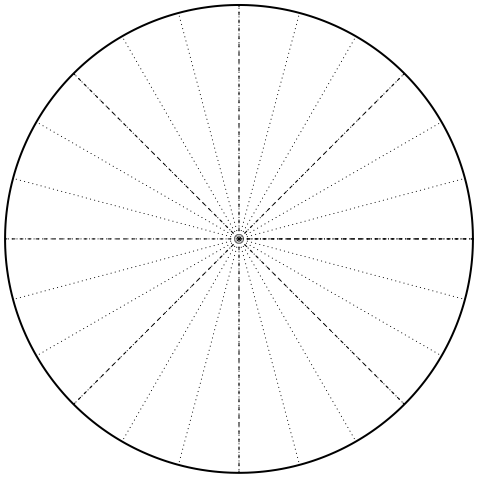


u12 Radians, Degrees, and Arc Length Practice (version 69)

2. On the circle below, draw a sketch of a **630º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{-17\pi}{6}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

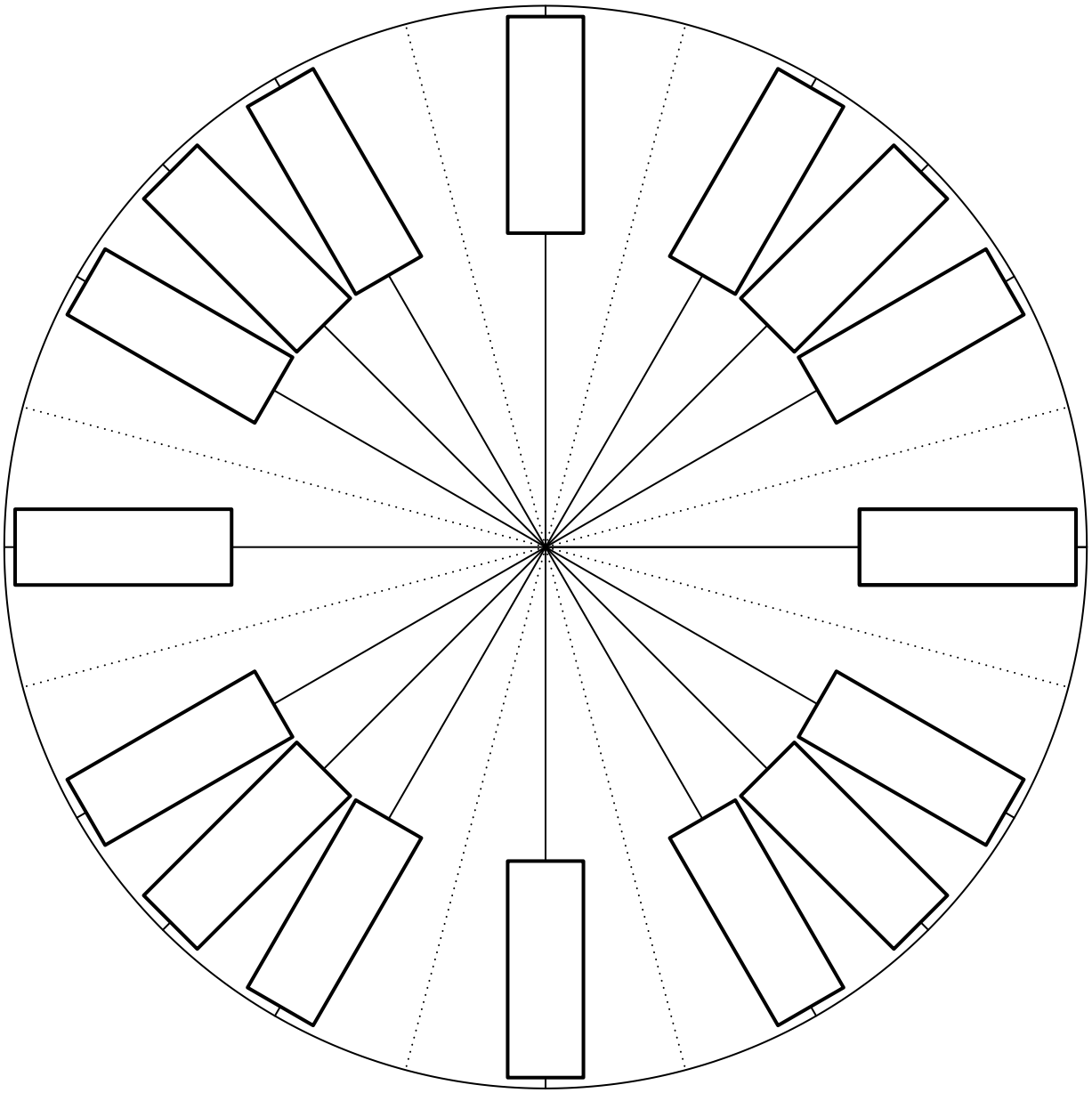


4. A circle is drawn with a central angle of θ radians. The radius is 6 meters and the subtended arc length is 24 meters. Find θ.

Name: Date:

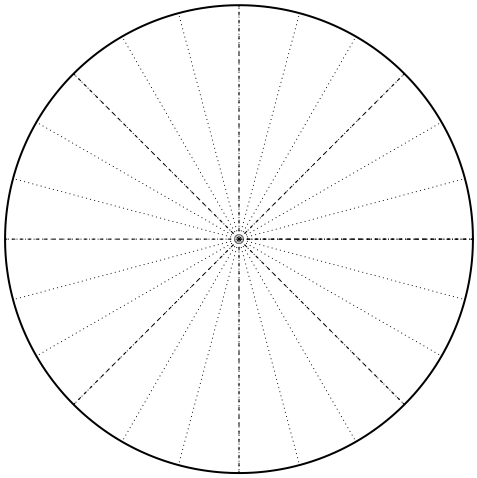
u12 Radians, Degrees, and Arc Length Practice (version 70)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

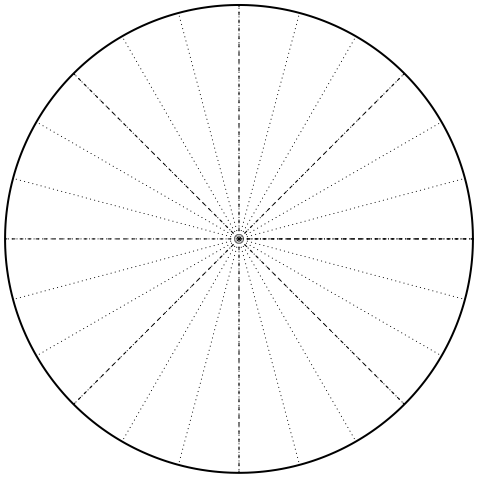


u12 Radians, Degrees, and Arc Length Practice (version 70)

2. On the circle below, draw a sketch of a **-1215º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{7\pi}{2}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

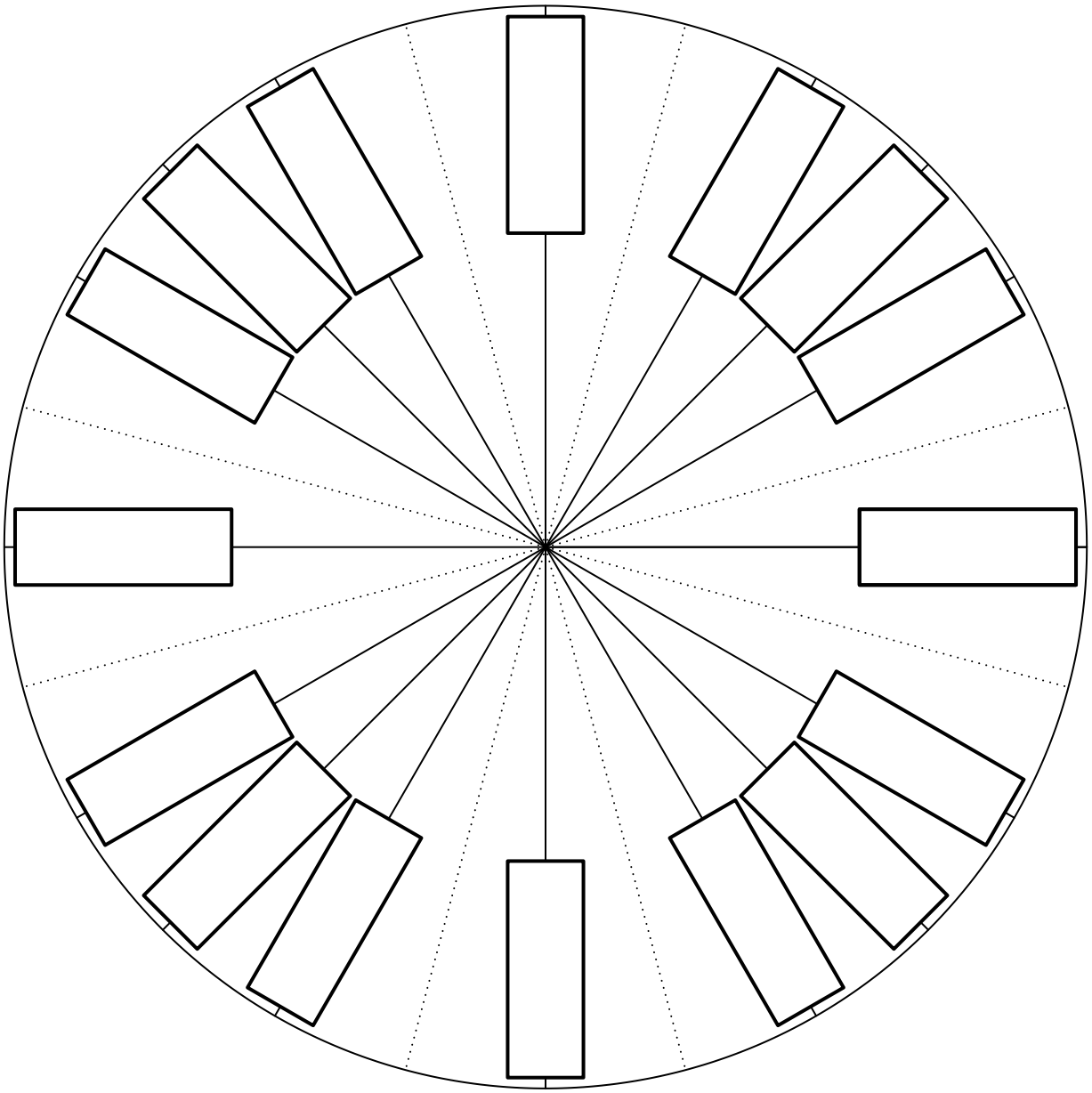


4. A circle, a central angle, and the subtended arc are drawn. The arc length is 10 meters. The central angle is 2 radians. The radius is r meters. Find r.

Name: Date:

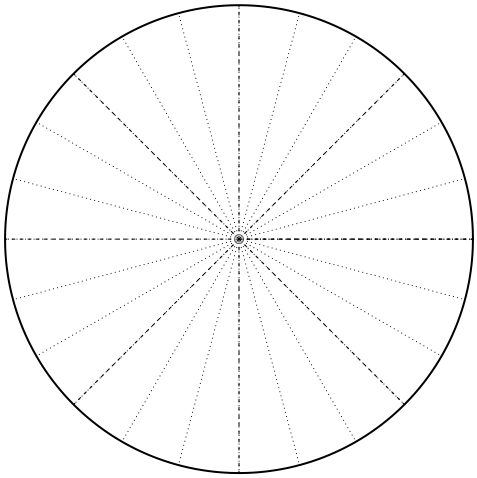
u12 Radians, Degrees, and Arc Length Practice (version 71)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

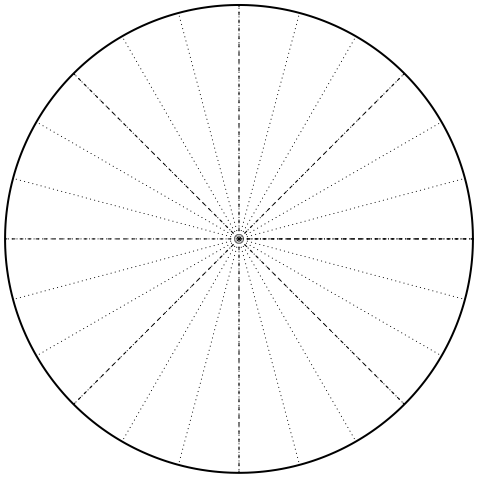


u12 Radians, Degrees, and Arc Length Practice (version 71)

2. On the circle below, draw a sketch of a **-1380º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{-25\pi}{6}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

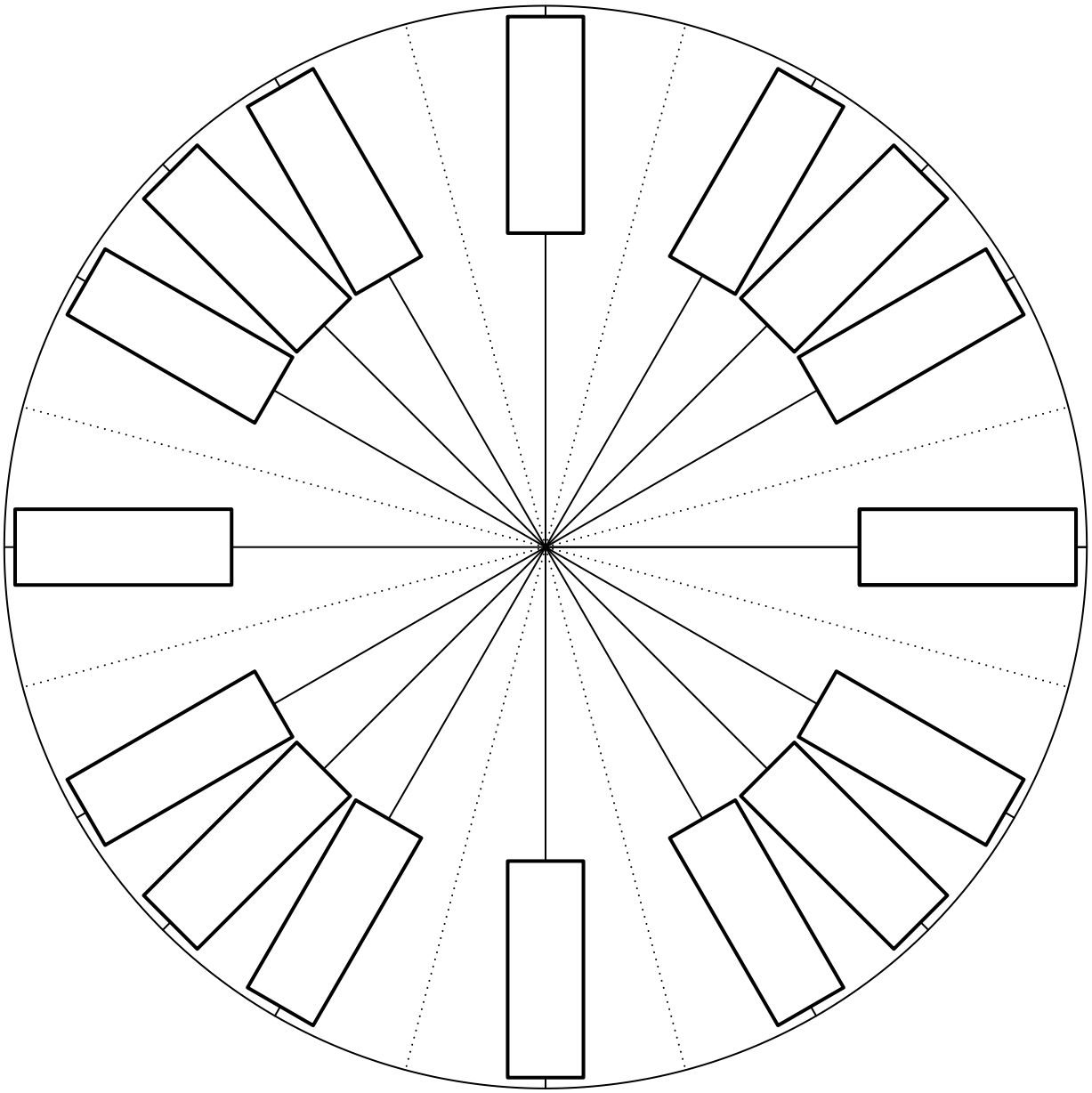


4. A circle is drawn with a radius of 3 meters. A central angle of θ radians is drawn, subtending an arc of length 15 meters. Find θ.

Name: Date:

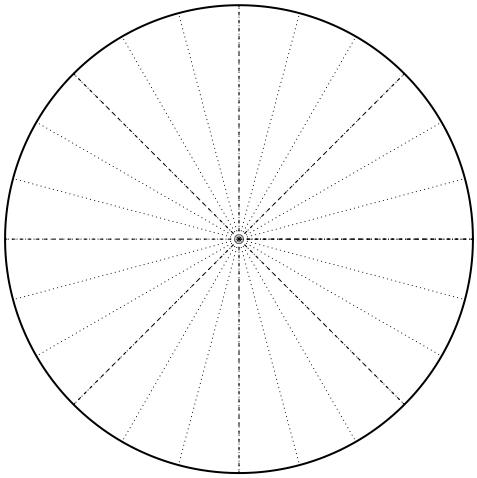
u12 Radians, Degrees, and Arc Length Practice (version 72)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

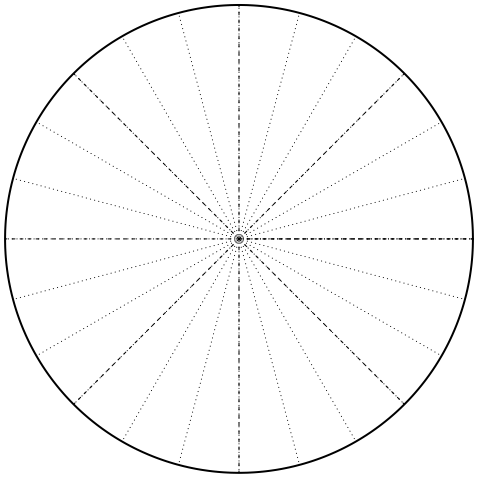


u12 Radians, Degrees, and Arc Length Practice (version 72)

2. On the circle below, draw a sketch of a **-675º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{20\pi}{3}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

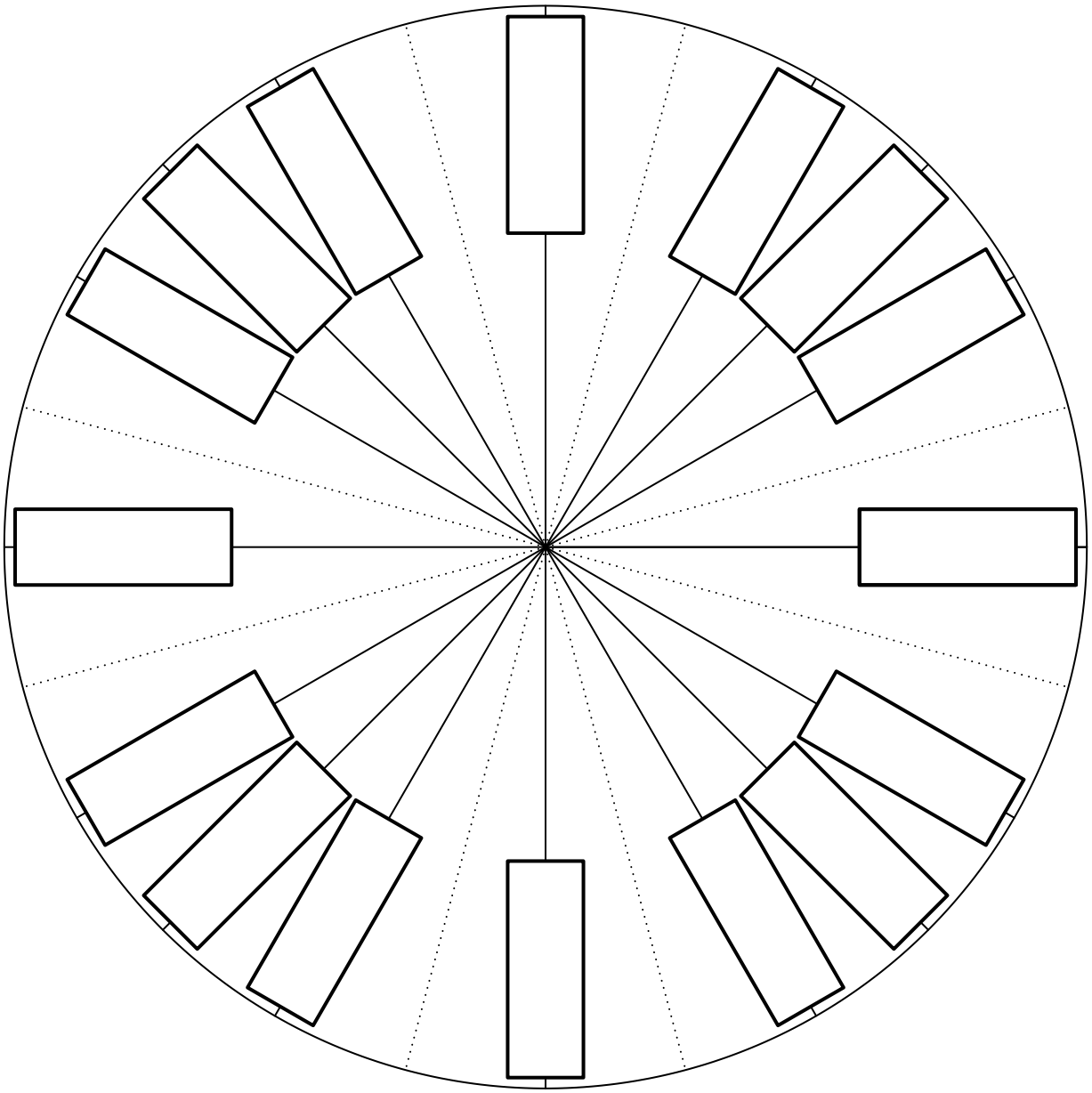


4. A circle, a central angle, and the subtended arc are drawn. The arc length is 10 meters. The central angle is θ radians. The radius is 5 meters. Find θ.

Name: Date:

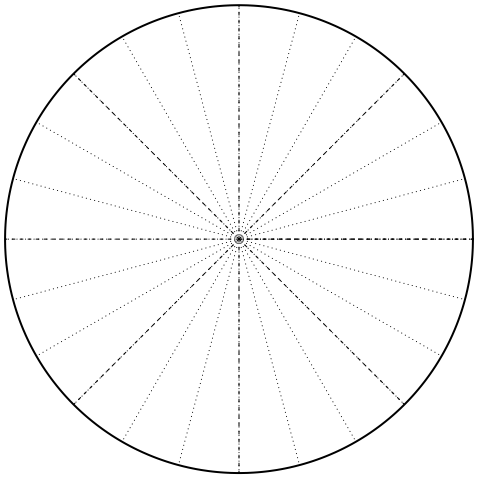
u12 Radians, Degrees, and Arc Length Practice (version 73)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

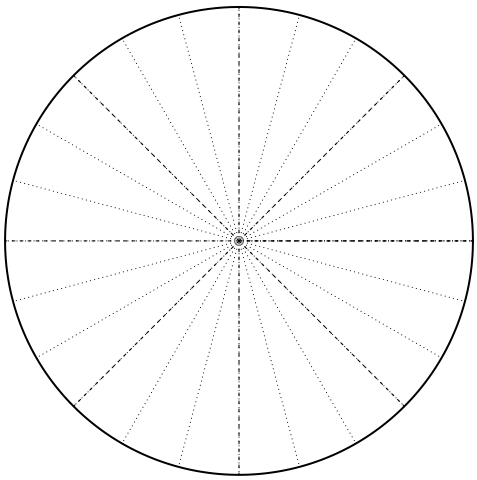


u12 Radians, Degrees, and Arc Length Practice (version 73)

2. On the circle below, draw a sketch of a **510°** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{-13\pi}{6}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

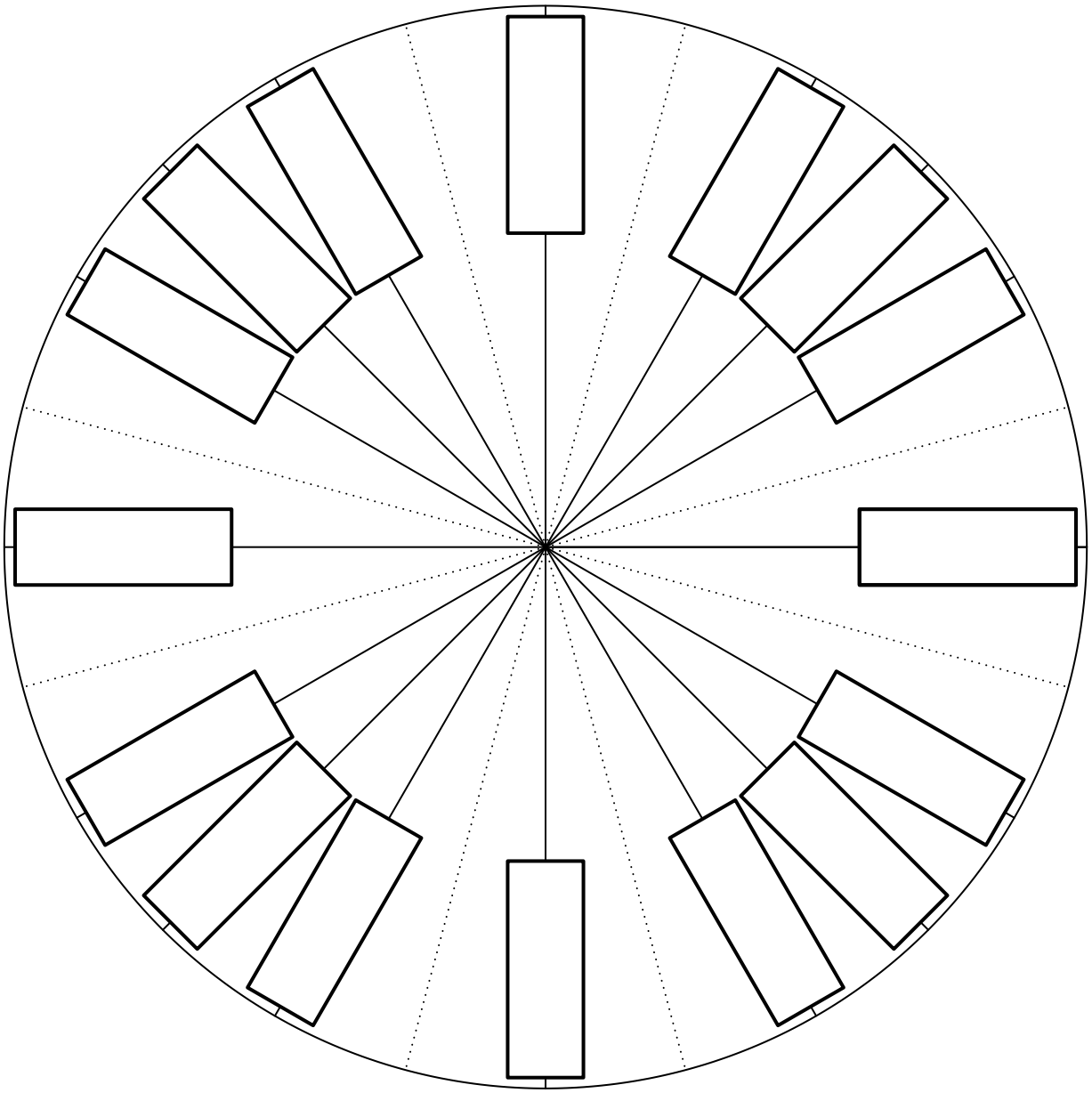


4. A circle, a central angle, and the subtended arc are drawn. The arc length is L meters. The central angle is 5 radians. The radius is 4 meters. Find L.

Name: Date:

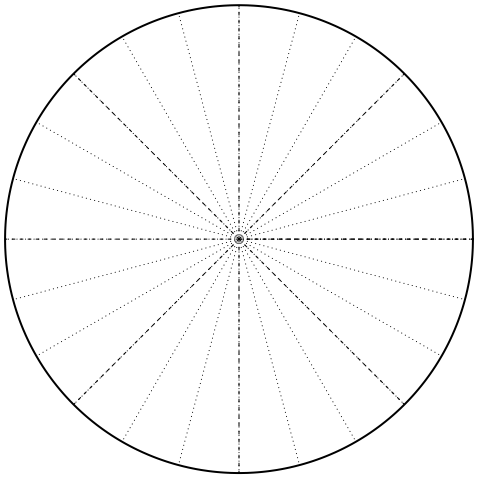
u12 Radians, Degrees, and Arc Length Practice (version 74)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

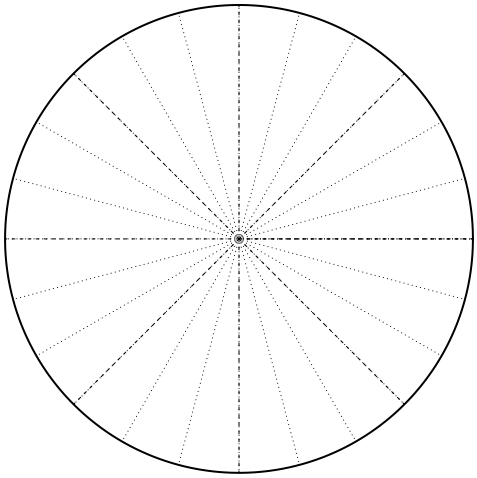


u12 Radians, Degrees, and Arc Length Practice (version 74)

2. On the circle below, draw a sketch of a **-765º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{-35\pi}{6}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

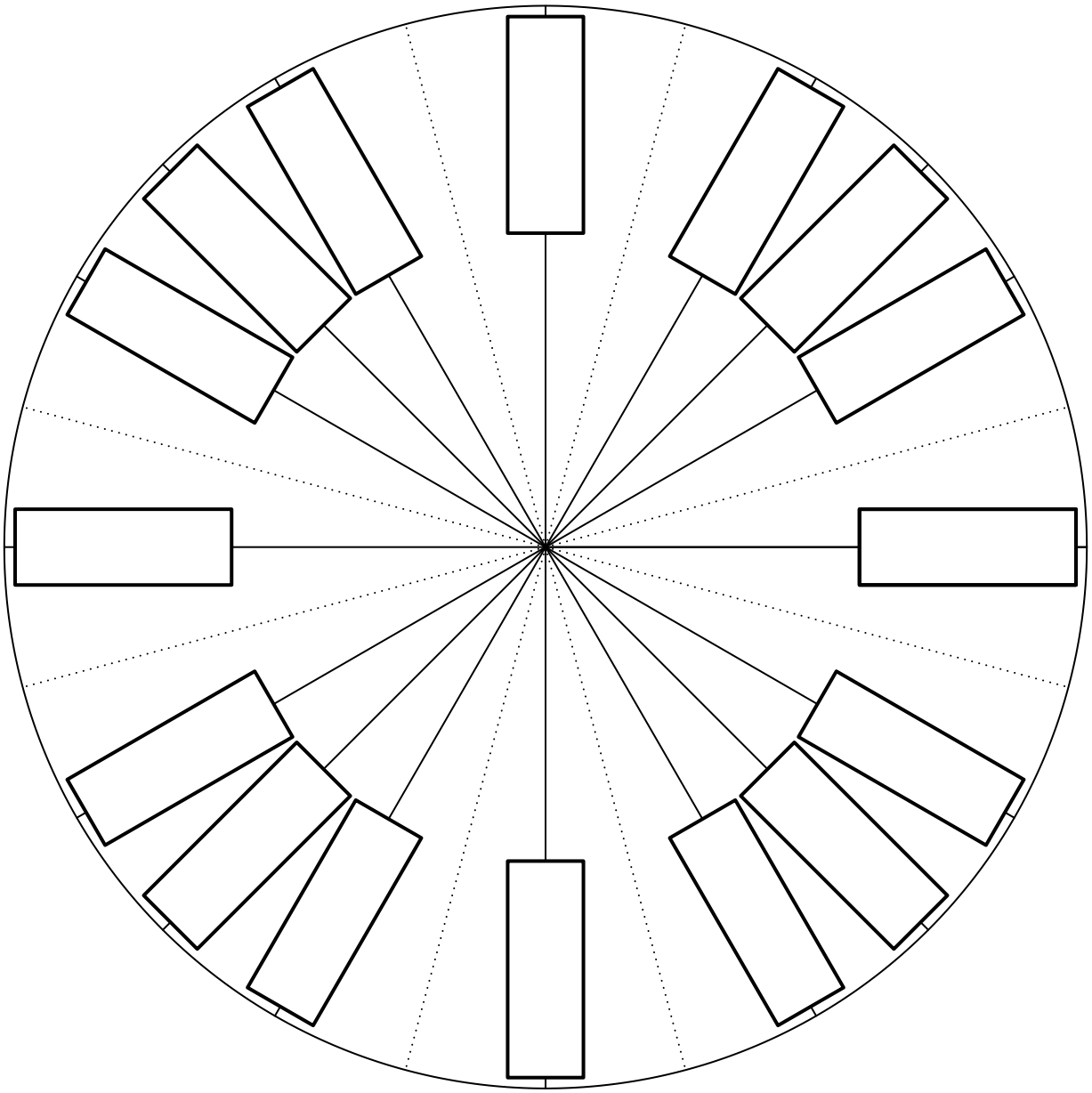


4. A circle, a central angle, and the subtended arc are drawn. The arc length is 20 meters. The central angle is θ radians. The radius is 4 meters. Find θ.

Name: Date:

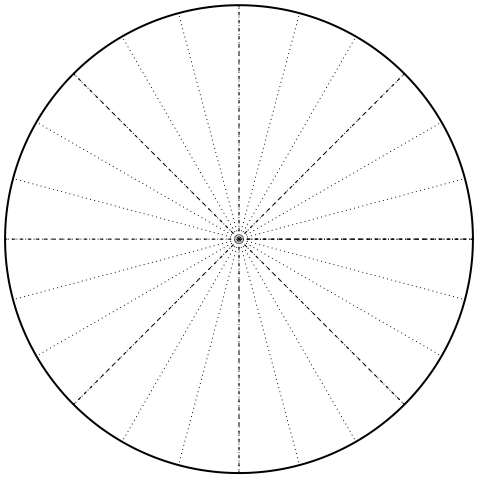
u12 Radians, Degrees, and Arc Length Practice (version 75)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

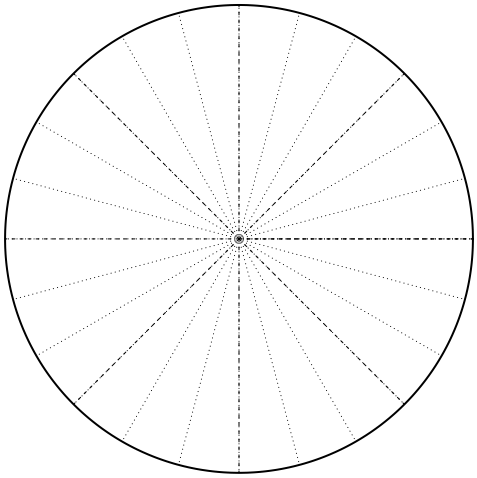


u12 Radians, Degrees, and Arc Length Practice (version 75)

2. On the circle below, draw a sketch of a **-480º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{15\pi}{2}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

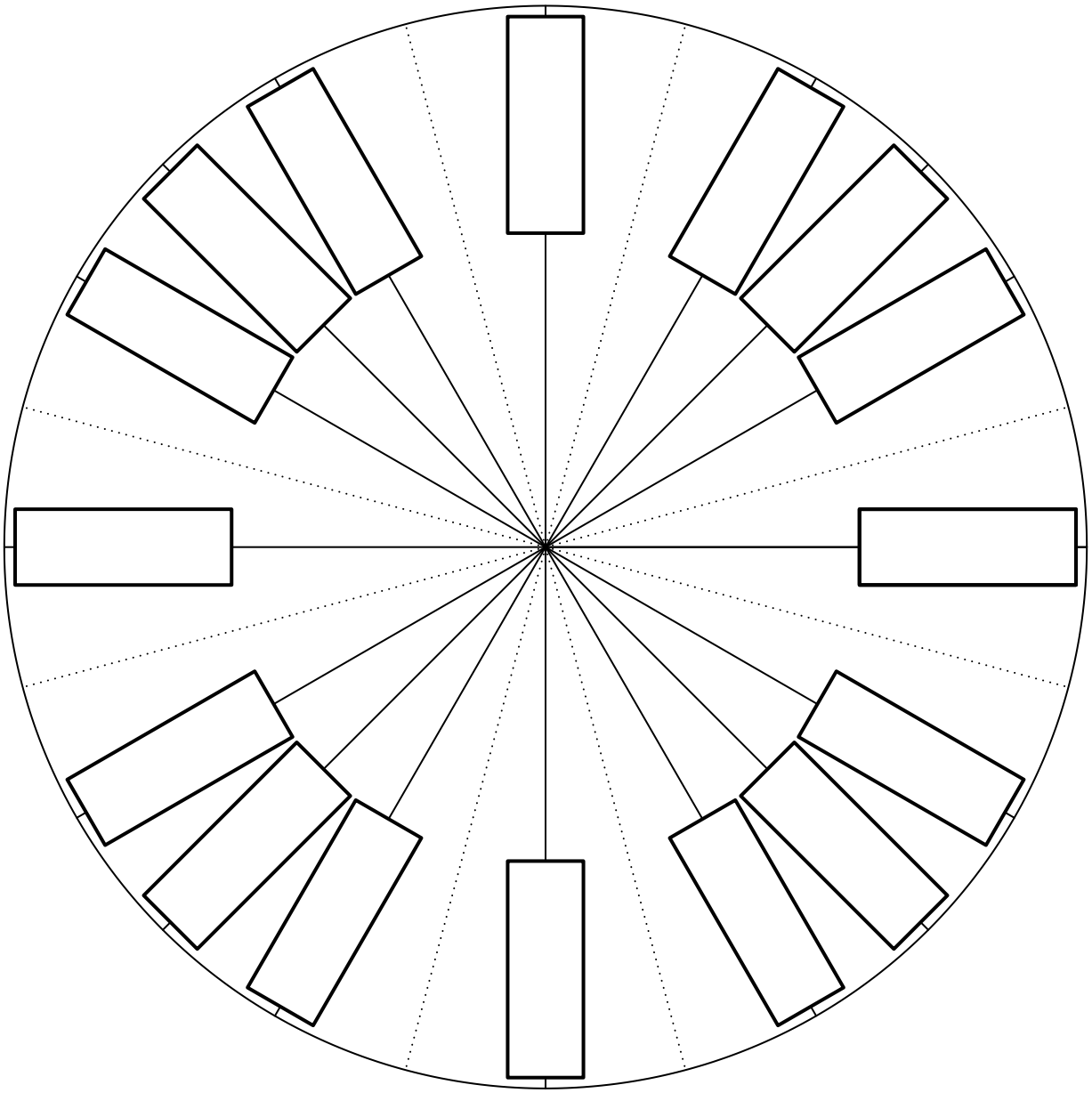


4. A circle is drawn with a radius of r meters. A central angle of 5 radians is drawn, subtending an arc of length 10 meters. Find r.

Name: Date:

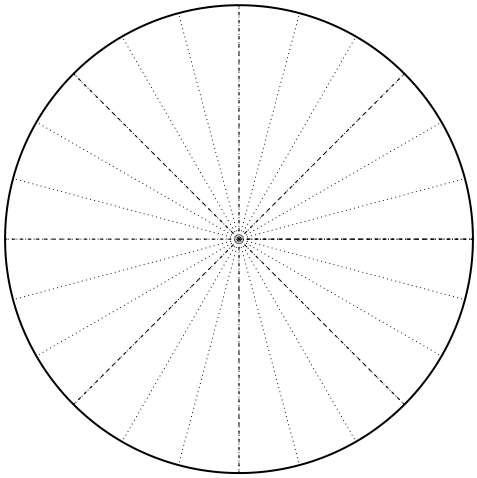
u12 Radians, Degrees, and Arc Length Practice (version 76)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

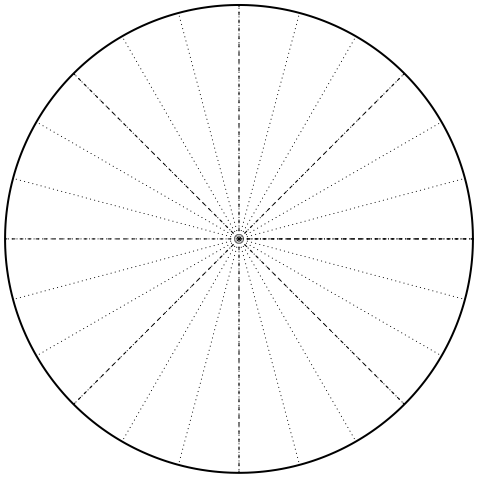


u12 Radians, Degrees, and Arc Length Practice (version 76)

2. On the circle below, draw a sketch of a **-390º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{16\pi}{3}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

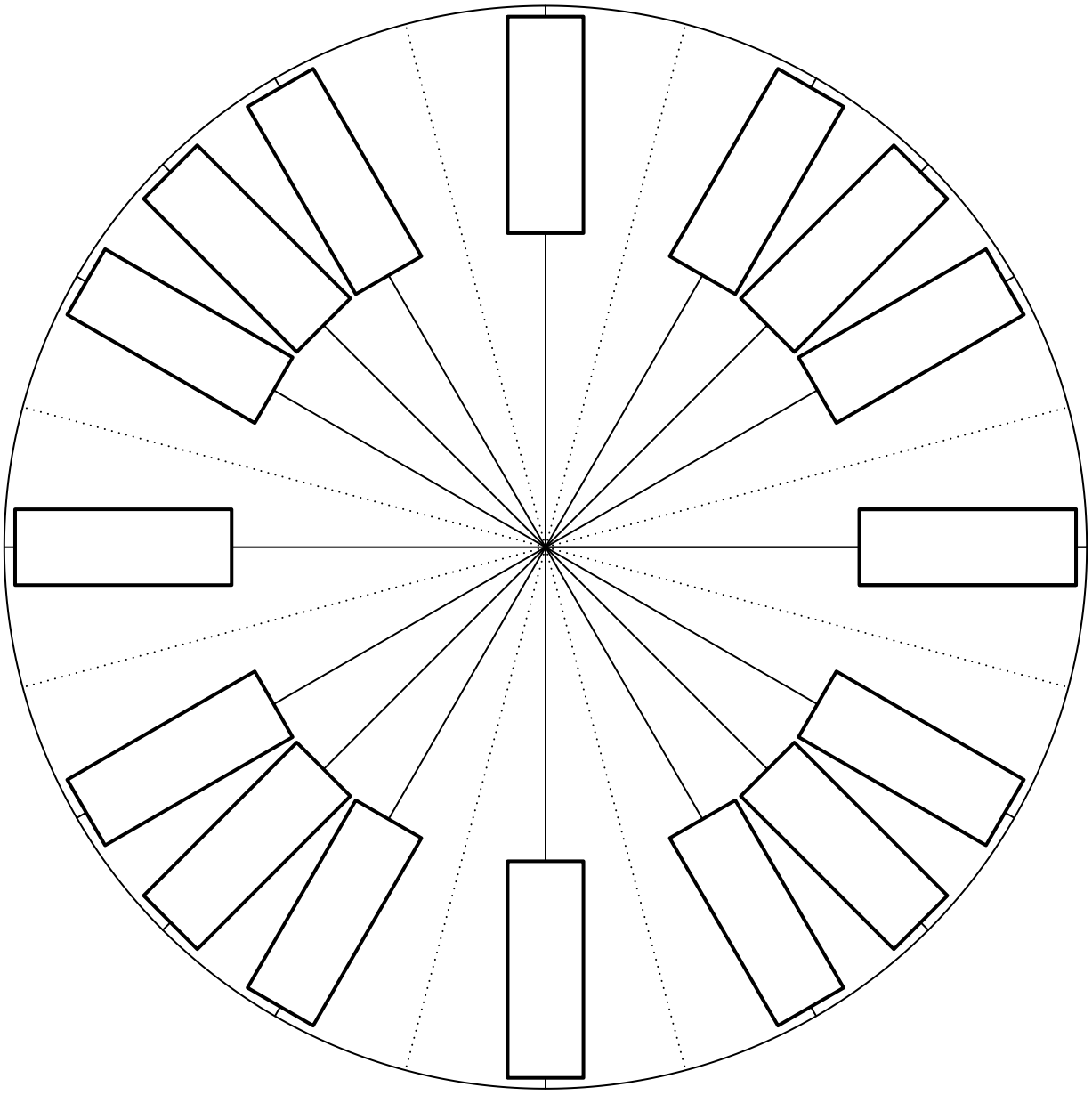


4. A circle is drawn with a central angle of θ radians. The radius is 5 meters and the subtended arc length is 10 meters. Find θ.

Name: Date:

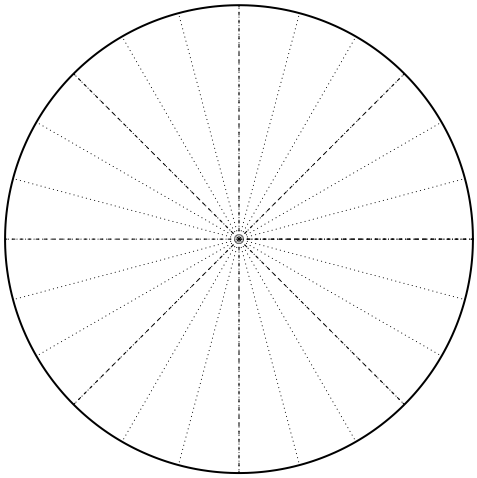
u12 Radians, Degrees, and Arc Length Practice (version 77)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

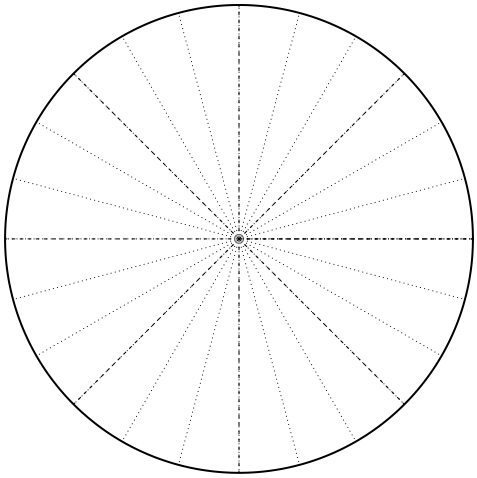


u12 Radians, Degrees, and Arc Length Practice (version 77)

2. On the circle below, draw a sketch of a **-1035º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{-8\pi}{3}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

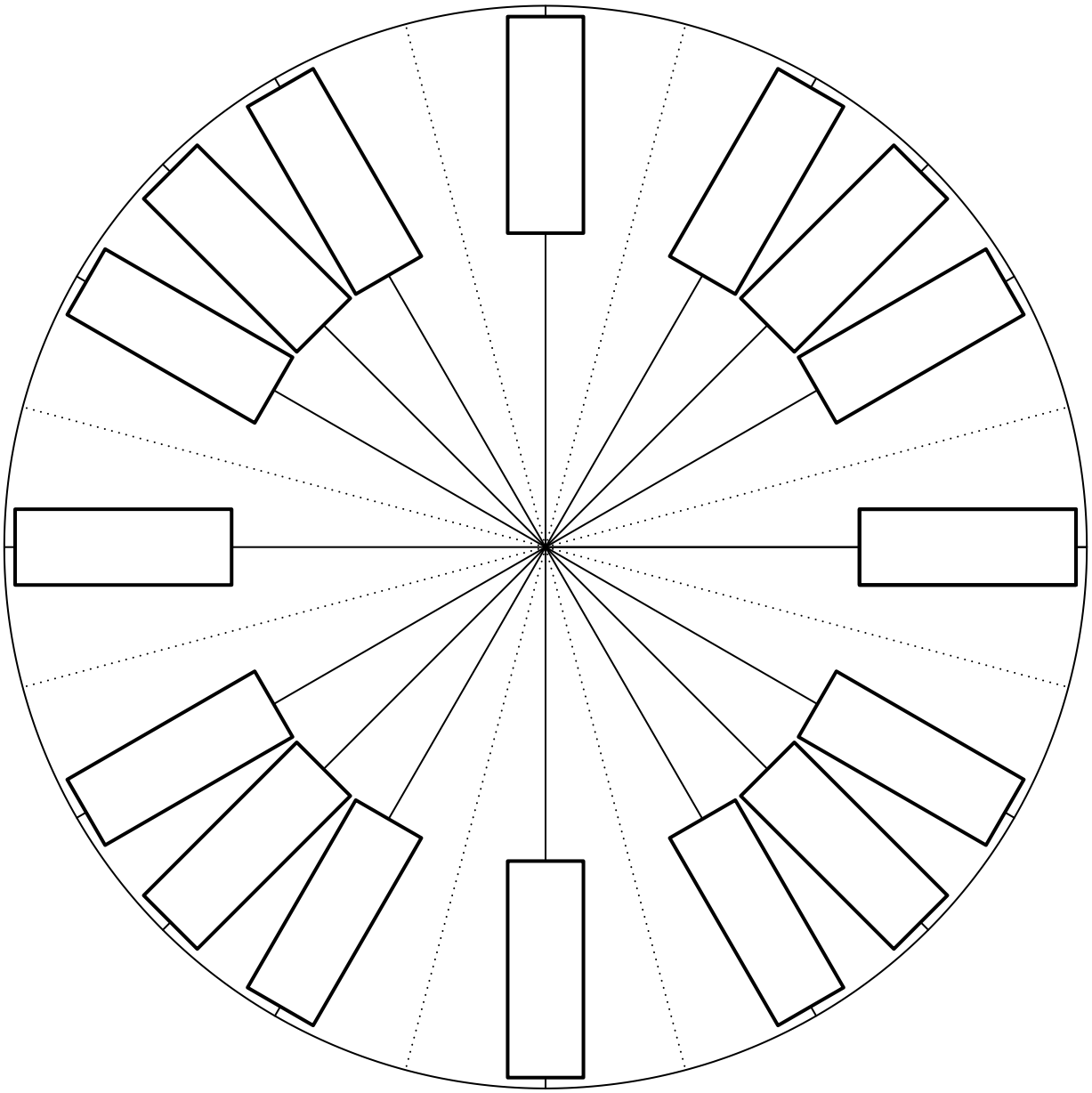


4. A circle, a central angle, and the subtended arc are drawn. The arc length is 20 meters. The central angle is θ radians. The radius is 4 meters. Find θ.

Name: Date:

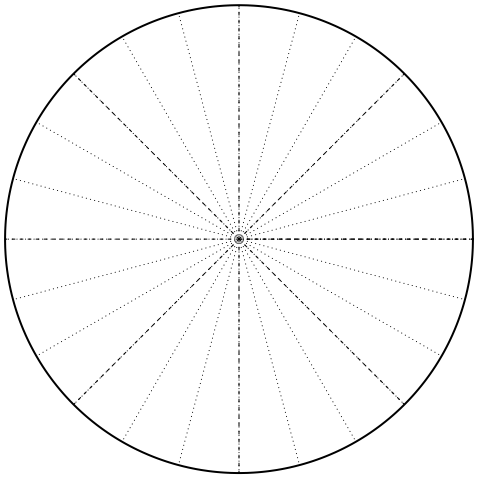
u12 Radians, Degrees, and Arc Length Practice (version 78)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

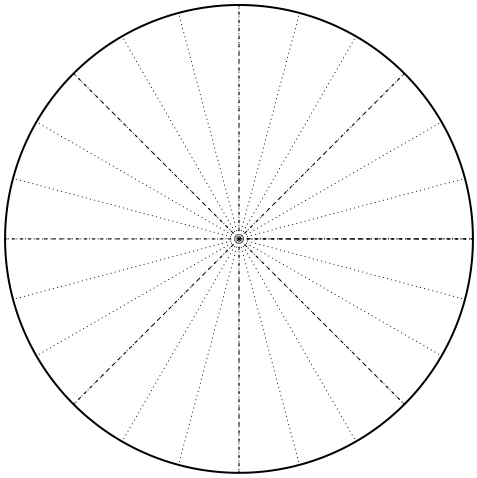


u12 Radians, Degrees, and Arc Length Practice (version 78)

2. On the circle below, draw a sketch of a **1410º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{23\pi}{3}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

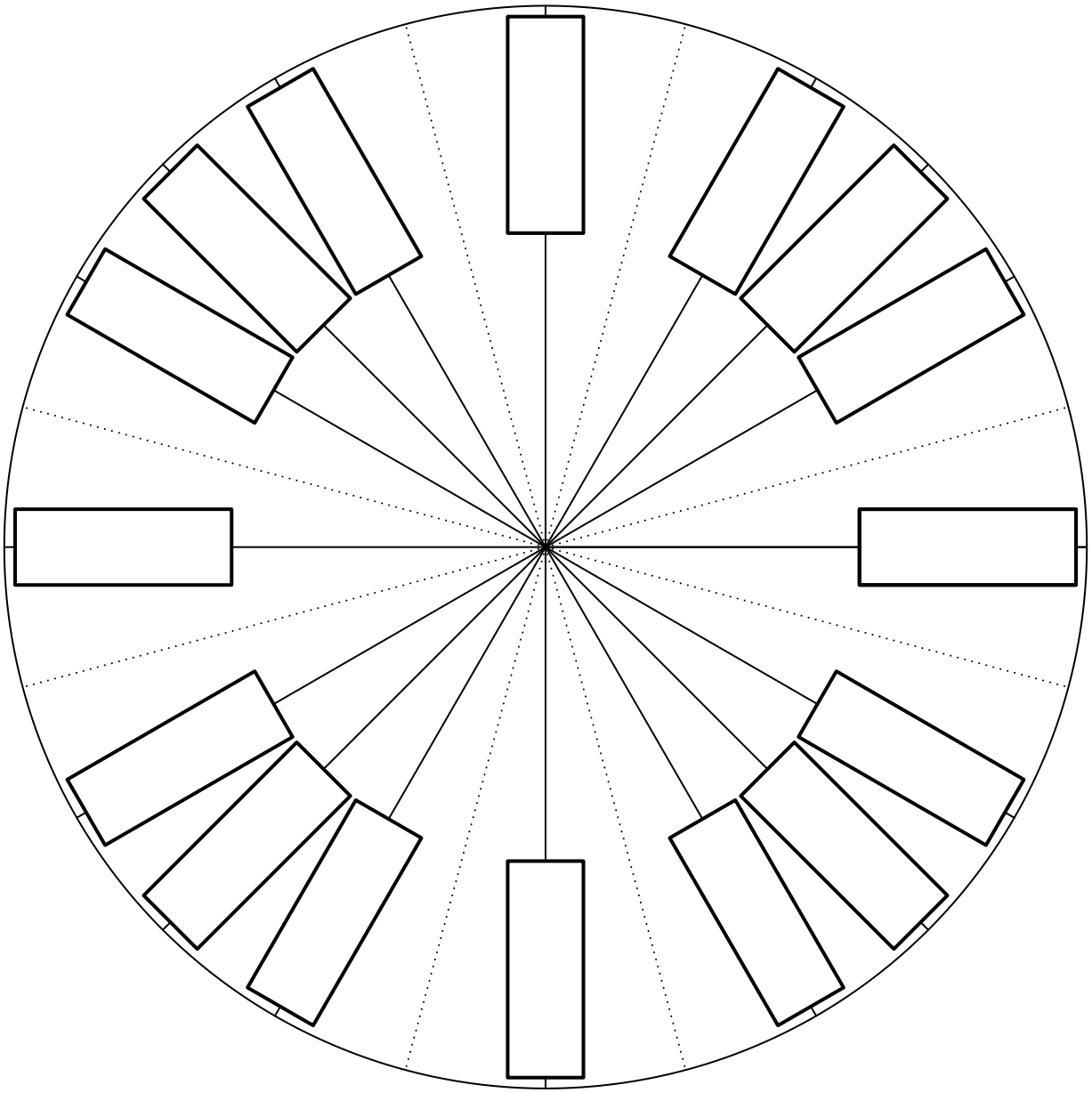


4. A circle is drawn with a radius of r meters. A central angle of 6 radians is drawn, subtending an arc of length 18 meters. Find r.

Name: Date:

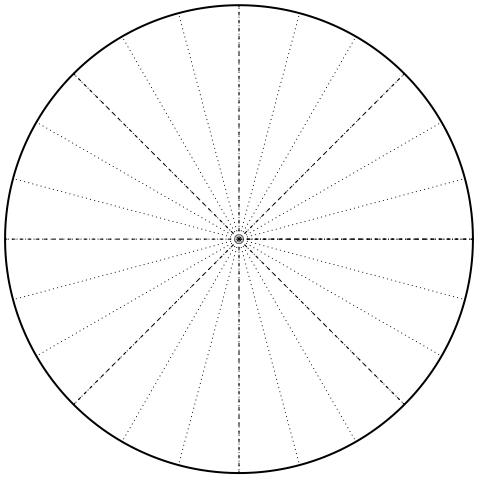
u12 Radians, Degrees, and Arc Length Practice (version 79)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

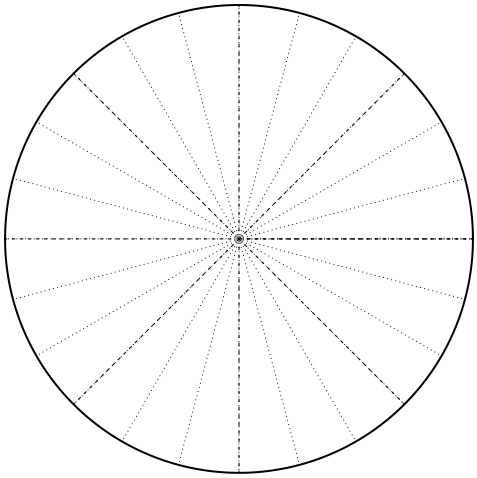


u12 Radians, Degrees, and Arc Length Practice (version 79)

2. On the circle below, draw a sketch of a **780°** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{25\pi}{4}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

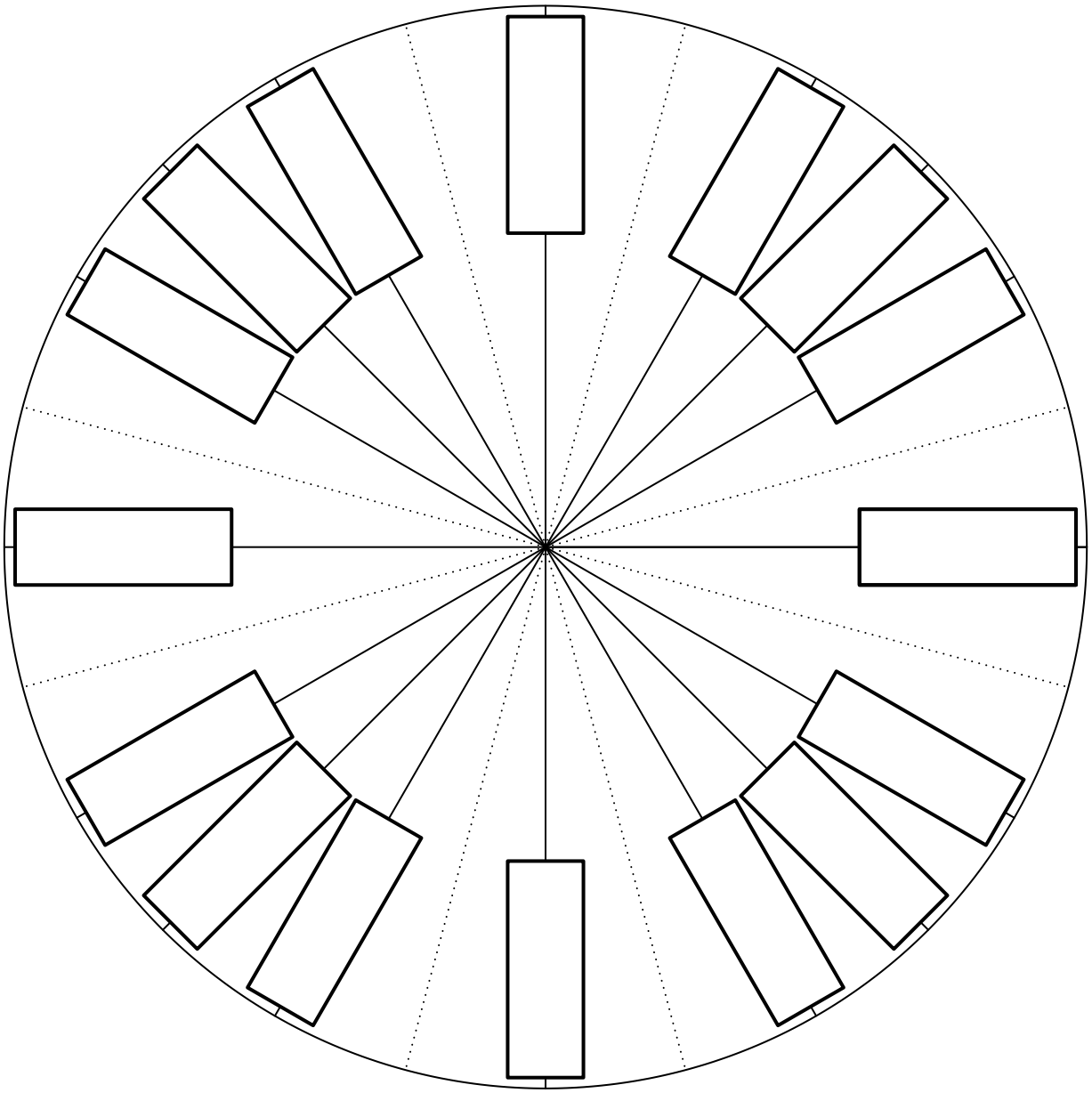


4. A circle is drawn with a radius of 4 meters. A central angle of θ radians is drawn, subtending an arc of length 8 meters. Find θ.

Name: Date:

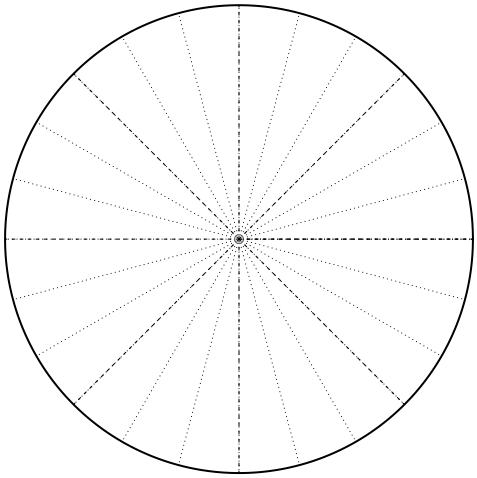
u12 Radians, Degrees, and Arc Length Practice (version 80)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

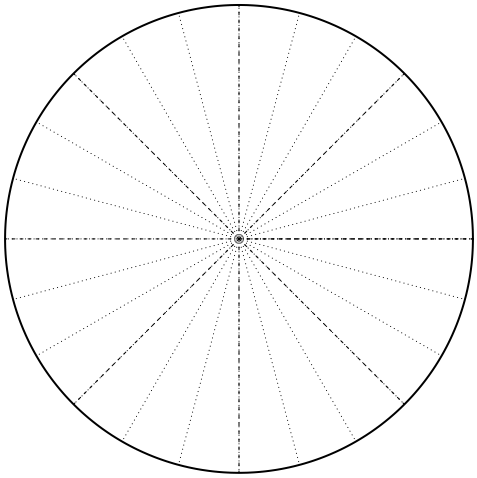


u12 Radians, Degrees, and Arc Length Practice (version 80)

2. On the circle below, draw a sketch of a **-1350º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{37\pi}{6}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

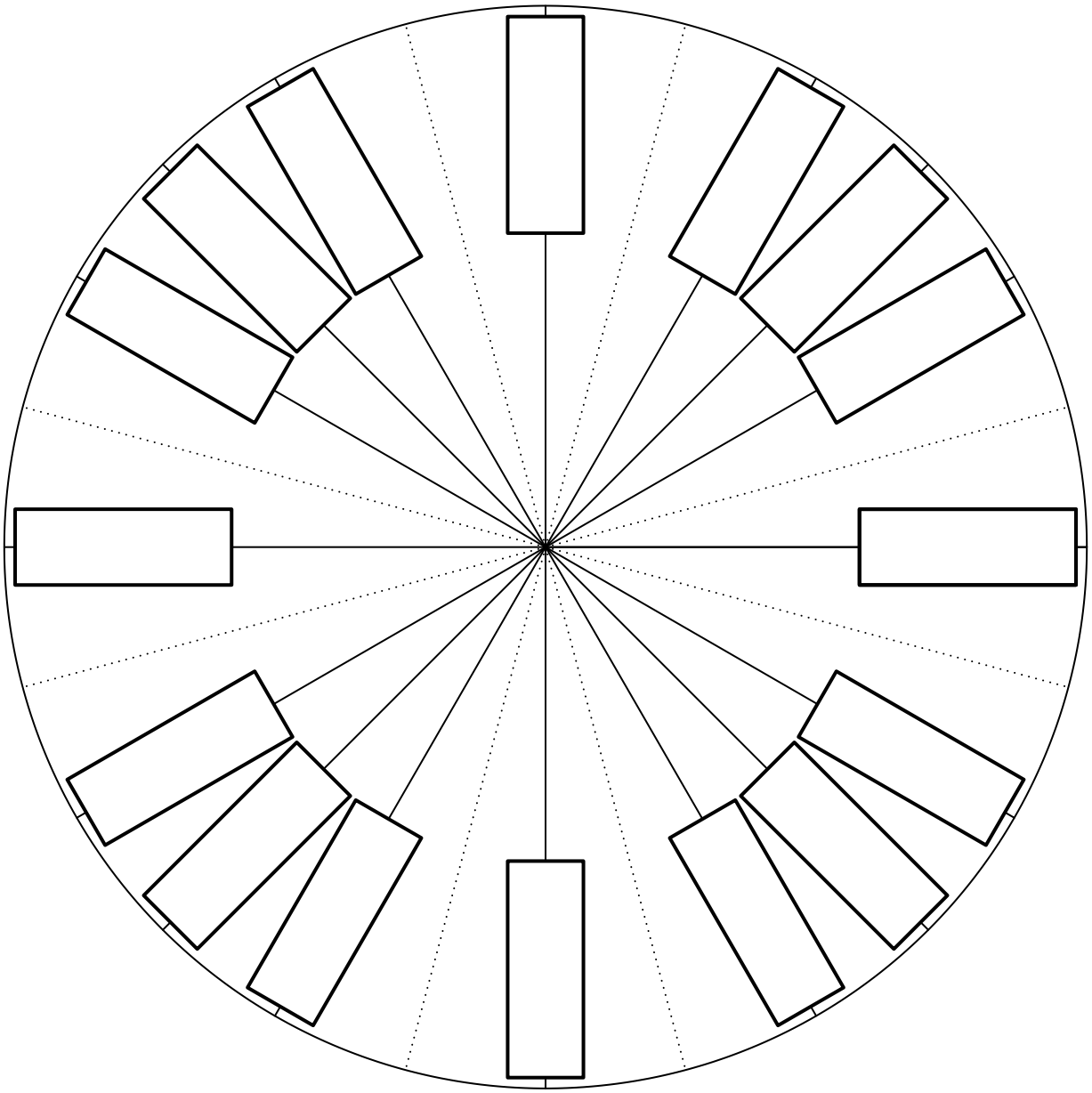


4. A circle, a central angle, and the subtended arc are drawn. The arc length is L meters. The central angle is 3 radians. The radius is 5 meters. Find L.

Name: Date:

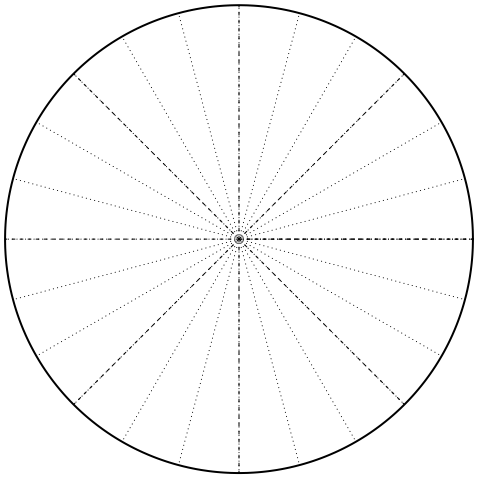
u12 Radians, Degrees, and Arc Length Practice (version 81)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

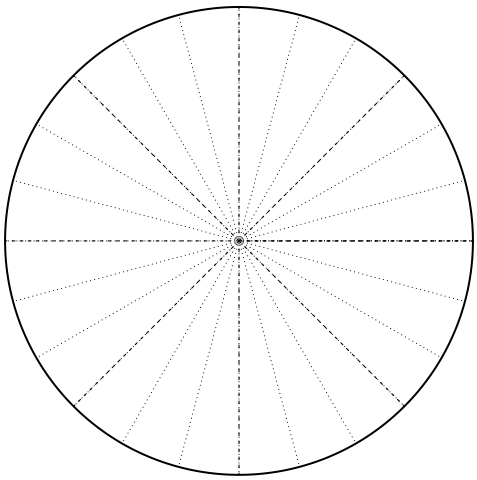


u12 Radians, Degrees, and Arc Length Practice (version 81)

2. On the circle below, draw a sketch of a **-1200º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{-31\pi}{6}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

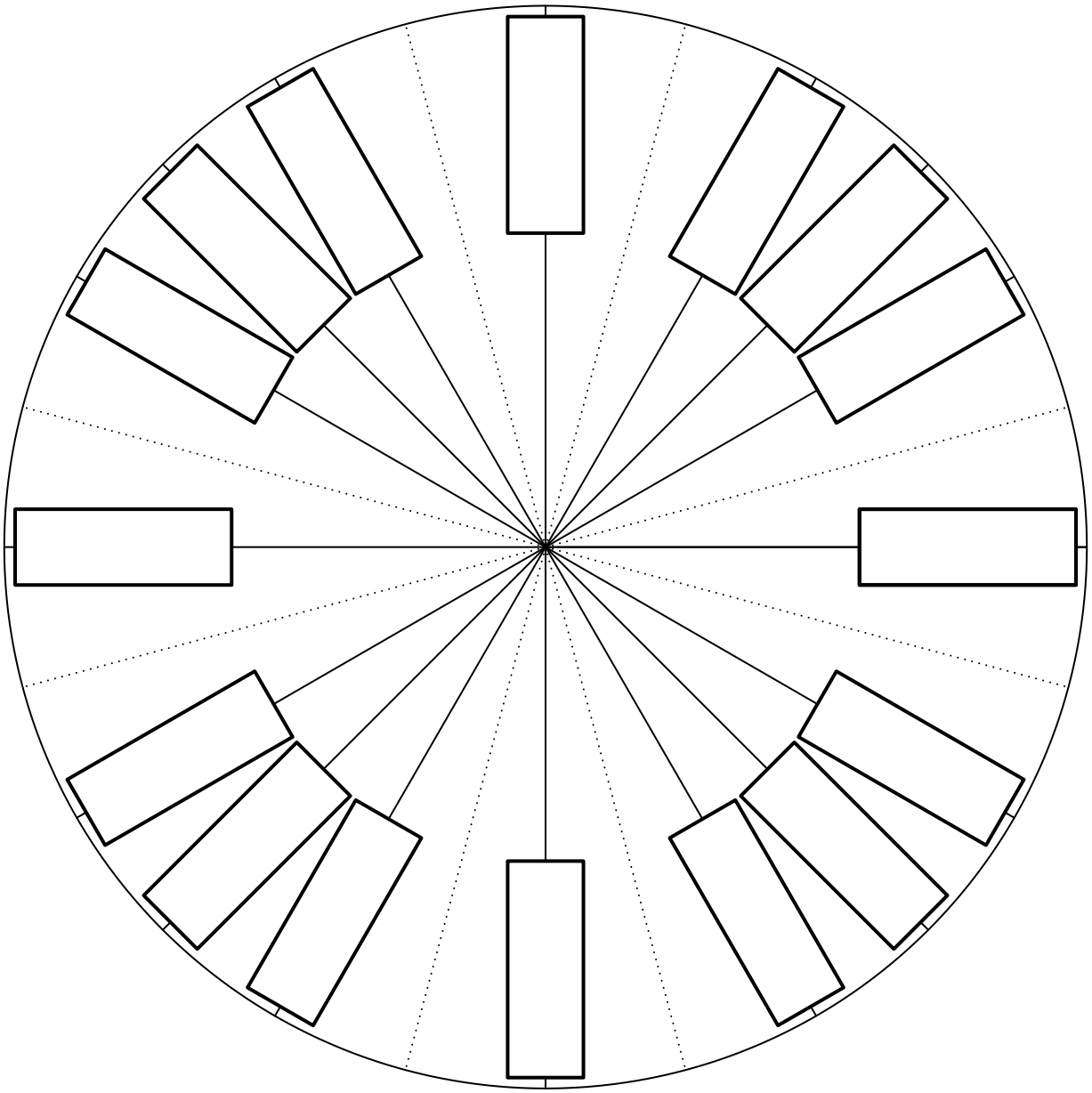


4. A circle is drawn with a radius of 5 meters. A central angle of θ radians is drawn, subtending an arc of length 10 meters. Find θ.

Name: Date:

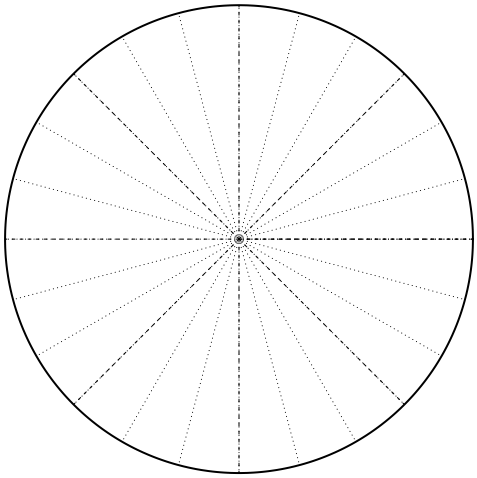
u12 Radians, Degrees, and Arc Length Practice (version 82)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

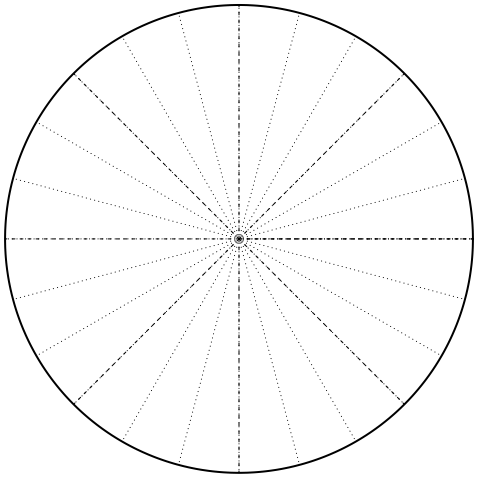


u12 Radians, Degrees, and Arc Length Practice (version 82)

2. On the circle below, draw a sketch of a **-420º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{47\pi}{6}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

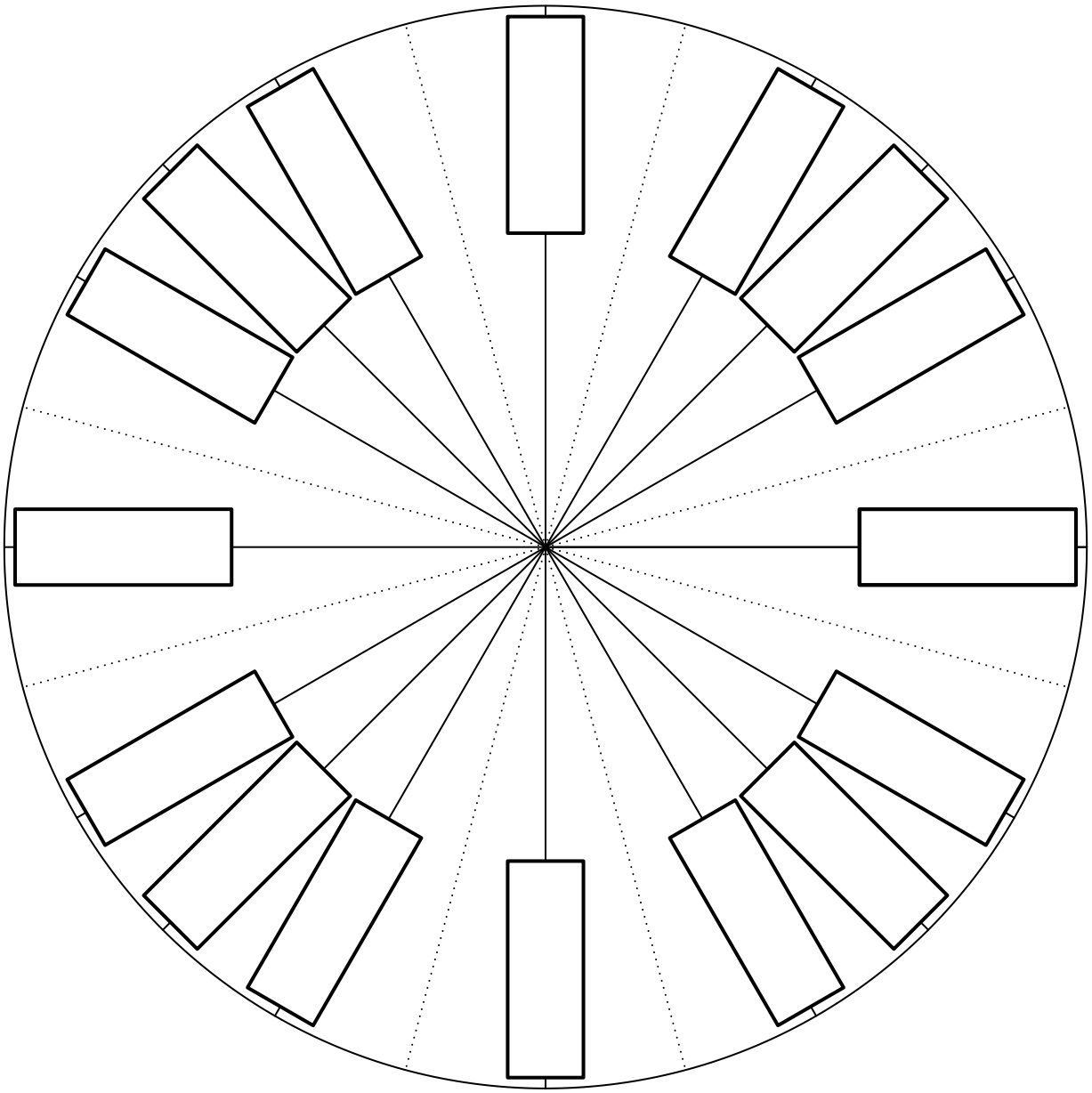


4. A circle, a central angle, and the subtended arc are drawn. The arc length is L meters. The central angle is 6 radians. The radius is 2 meters. Find L.

Name: Date:

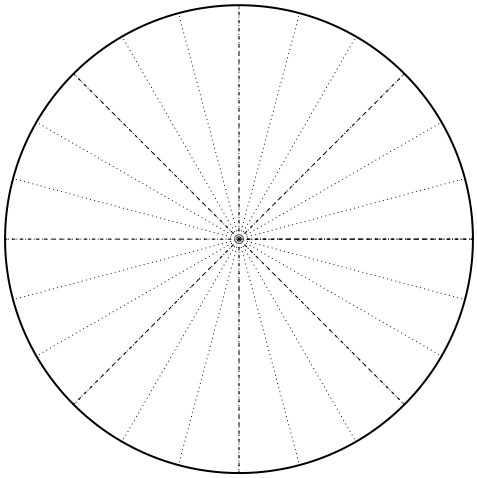
u12 Radians, Degrees, and Arc Length Practice (version 83)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

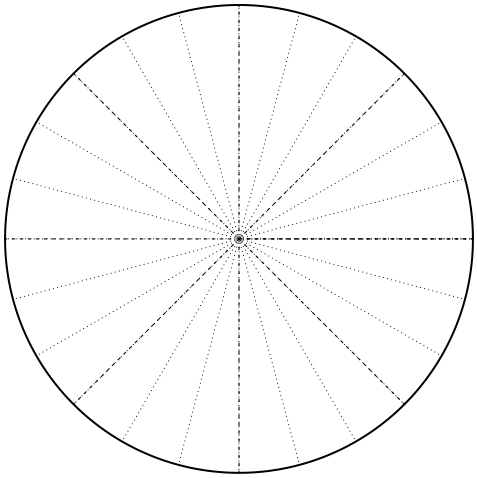


u12 Radians, Degrees, and Arc Length Practice (version 83)

2. On the circle below, draw a sketch of a **600º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{11\pi}{4}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

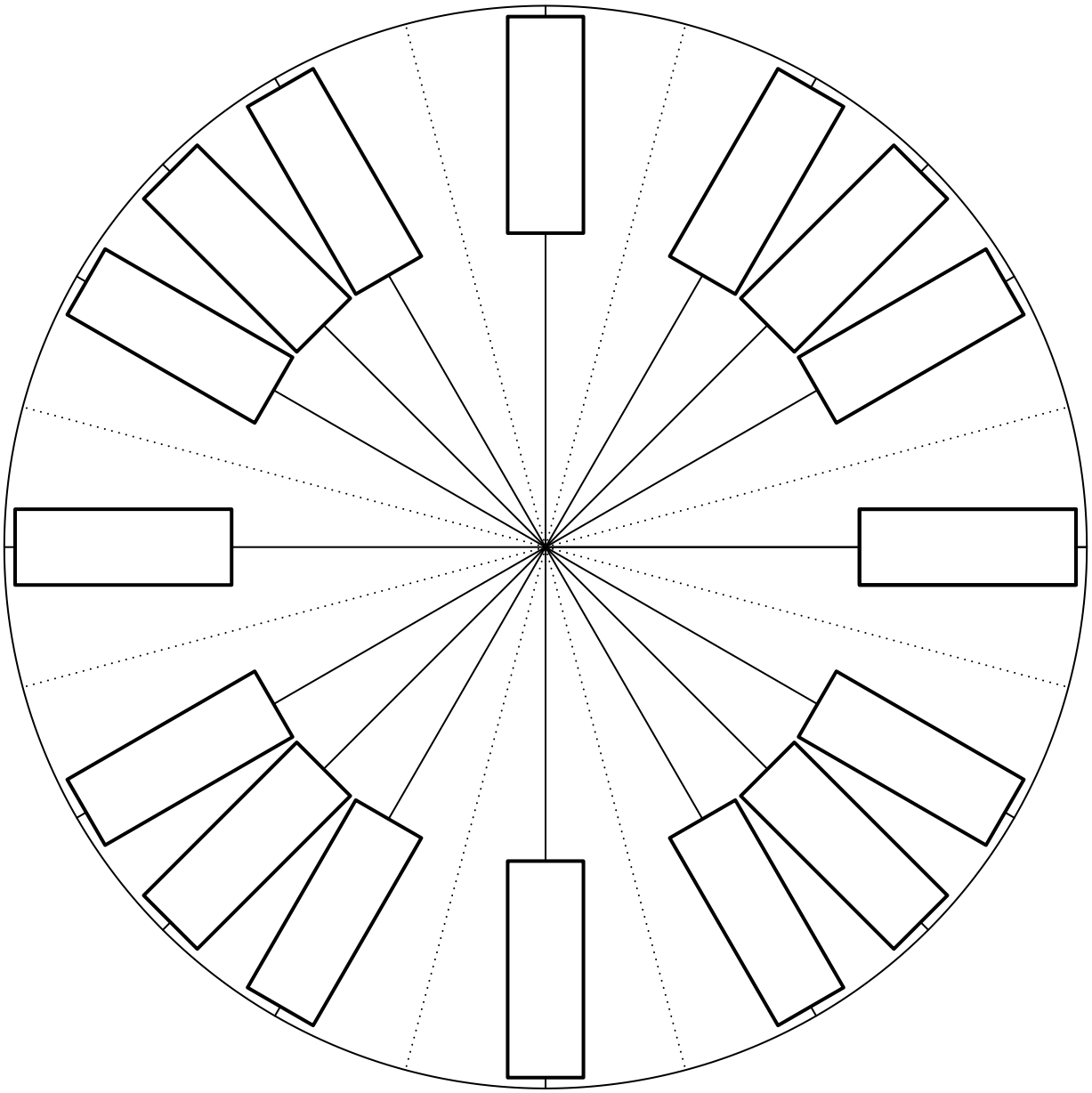


4. A circle is drawn with a central angle of 5 radians. The radius is 2 meters and the subtended arc length is L meters. Find L.

Name: Date:

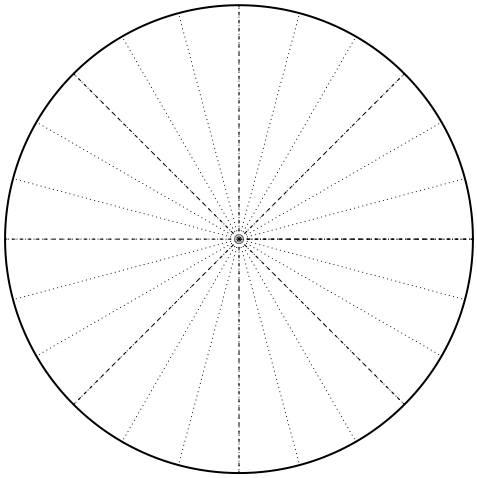
u12 Radians, Degrees, and Arc Length Practice (version 84)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

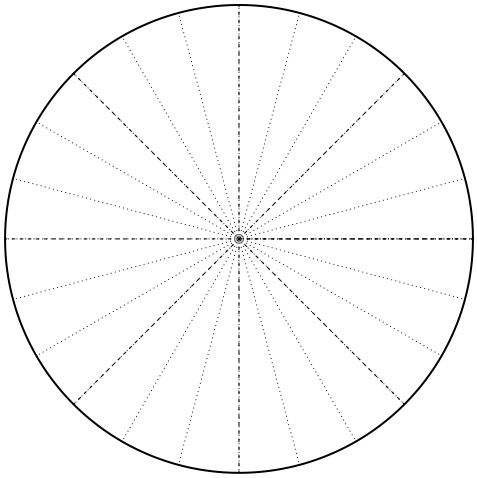


u12 Radians, Degrees, and Arc Length Practice (version 84)

2. On the circle below, draw a sketch of a **780°** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{21\pi}{4}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

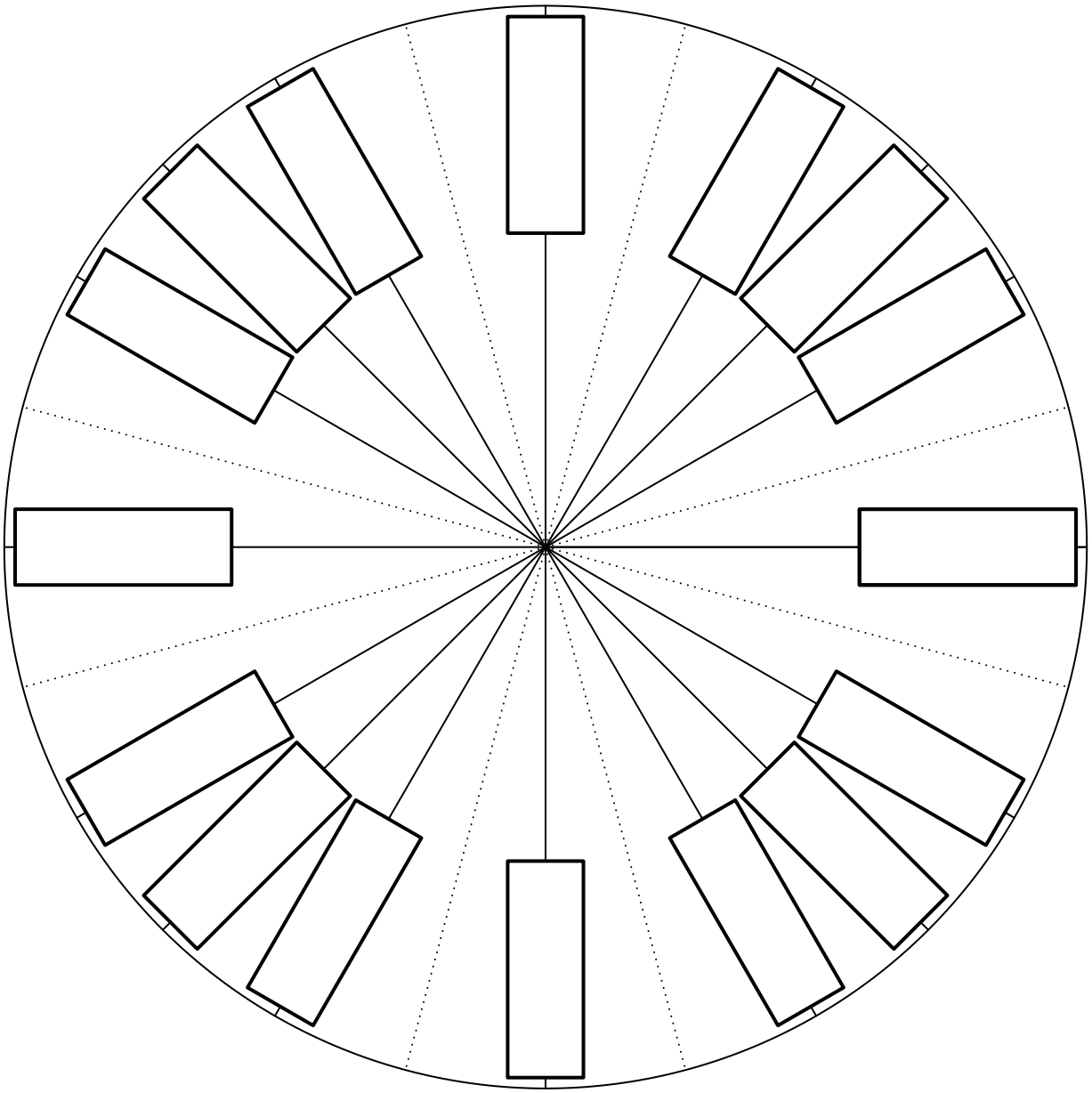


4. A circle is drawn with a radius of 5 meters. A central angle of 2 radians is drawn, subtending an arc of length L meters. Find L.

Name: Date:

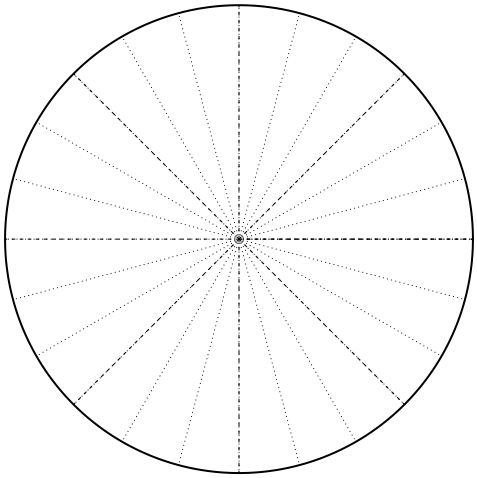
u12 Radians, Degrees, and Arc Length Practice (version 85)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

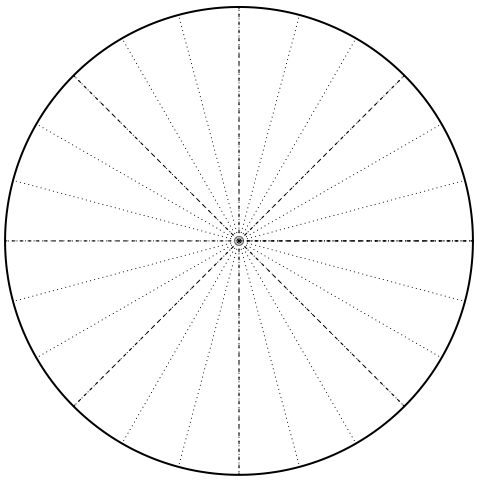


u12 Radians, Degrees, and Arc Length Practice (version 85)

2. On the circle below, draw a sketch of a **-420º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{-17\pi}{4}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

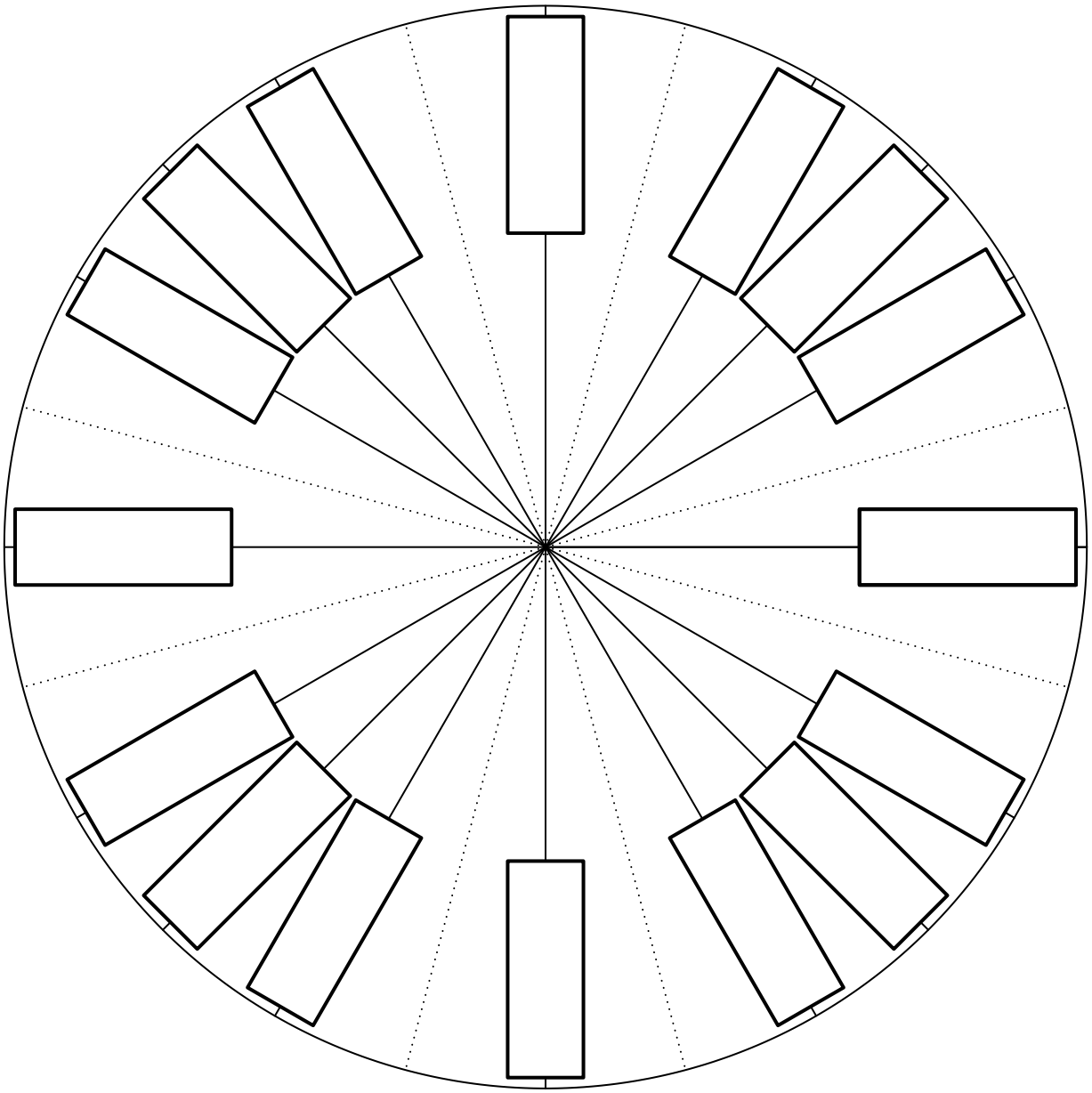


4. A circle is drawn with a radius of 6 meters. A central angle of 4 radians is drawn, subtending an arc of length L meters. Find L.

Name: Date:

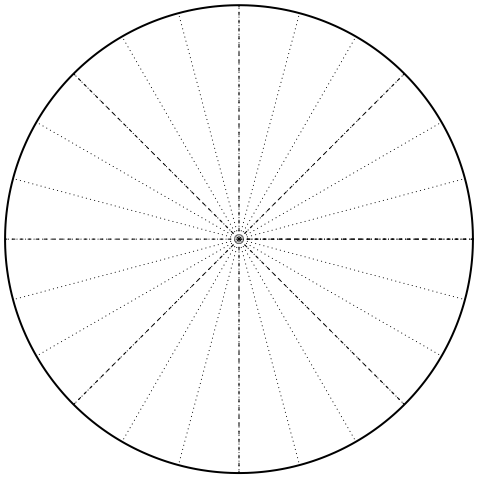
u12 Radians, Degrees, and Arc Length Practice (version 86)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

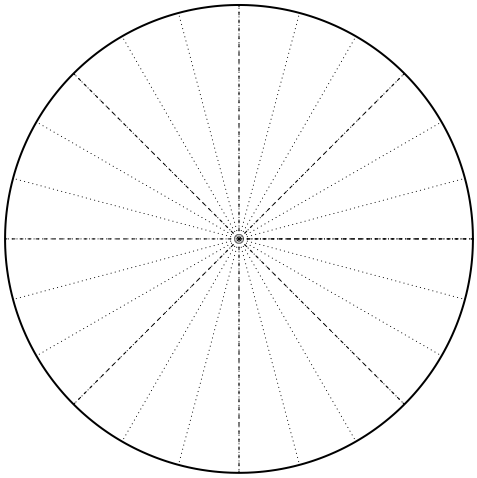


u12 Radians, Degrees, and Arc Length Practice (version 86)

2. On the circle below, draw a sketch of a **-1395º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{-11\pi}{3}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

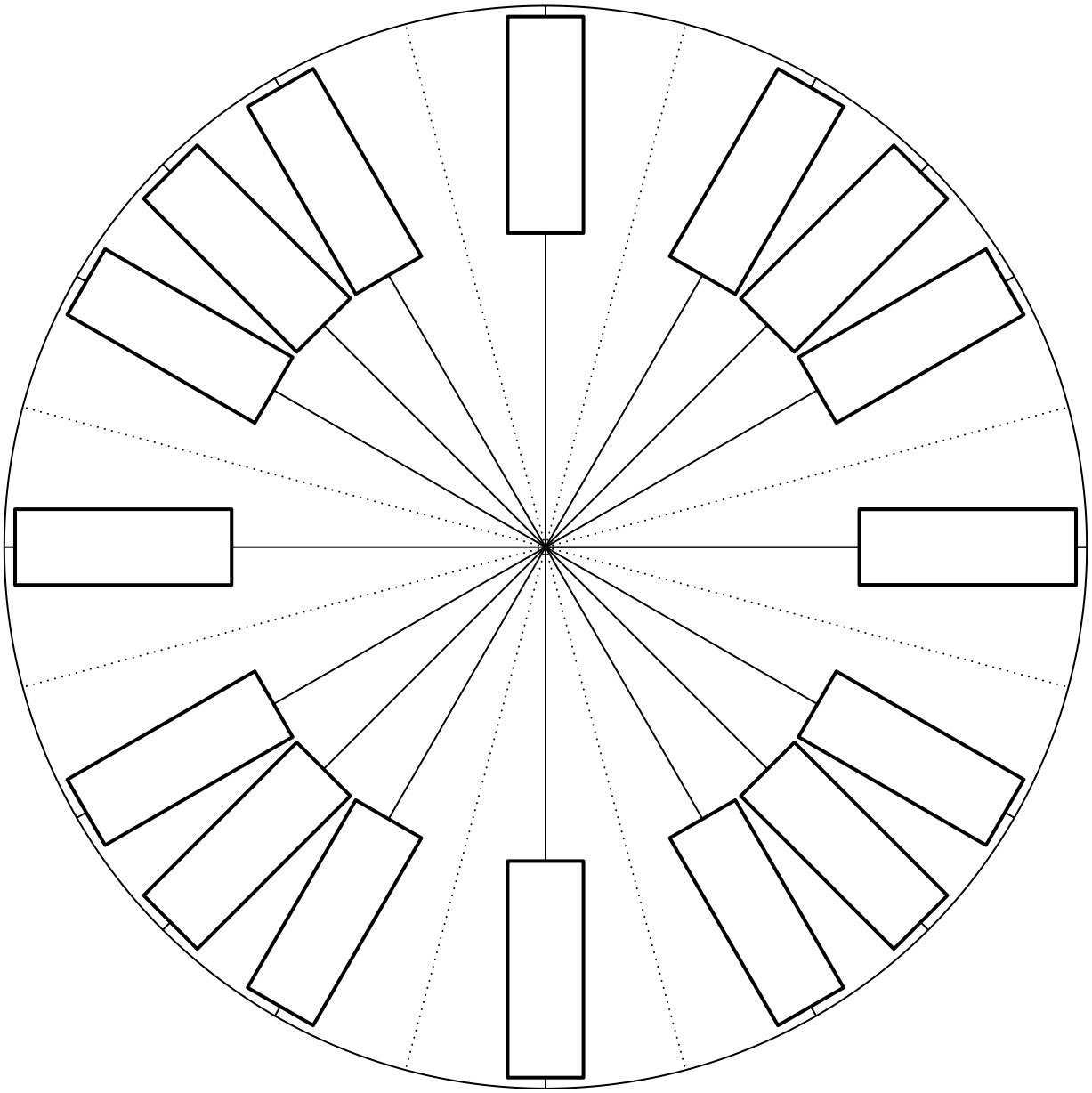


4. A circle is drawn with a radius of r meters. A central angle of 4 radians is drawn, subtending an arc of length 12 meters. Find r.

Name: Date:

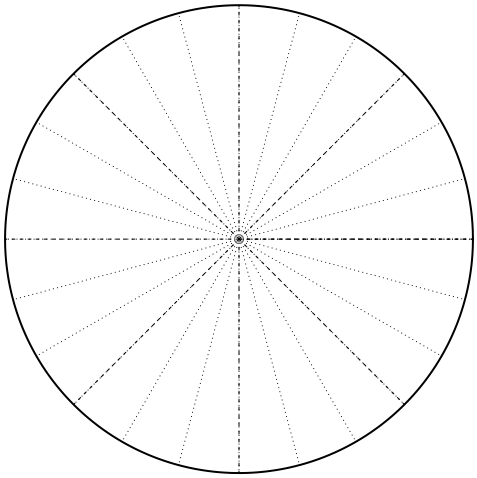
u12 Radians, Degrees, and Arc Length Practice (version 87)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

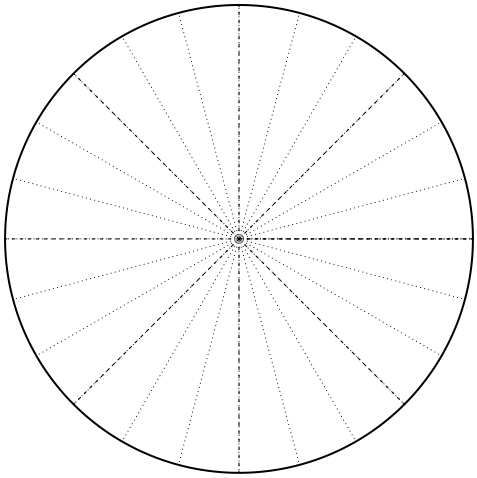


u12 Radians, Degrees, and Arc Length Practice (version 87)

2. On the circle below, draw a sketch of a **-960º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{-15\pi}{2}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

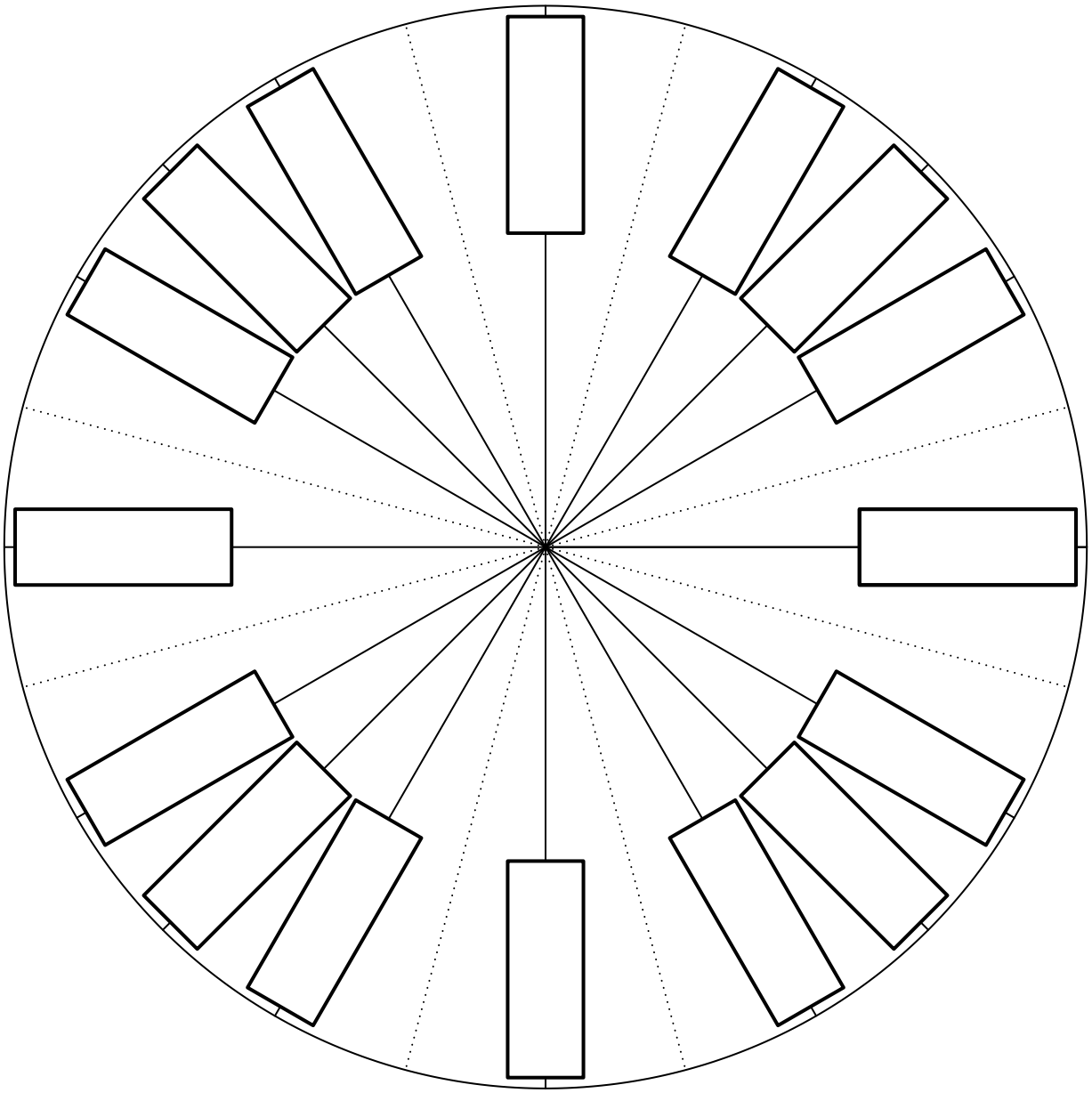


4. A circle, a central angle, and the subtended arc are drawn. The arc length is 30 meters. The central angle is θ radians. The radius is 5 meters. Find θ.

Name: Date:

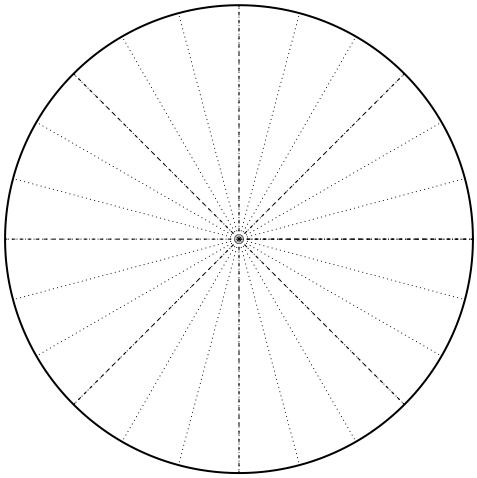
u12 Radians, Degrees, and Arc Length Practice (version 88)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

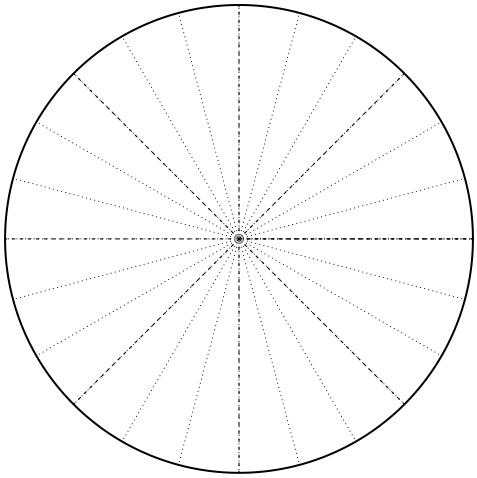


u12 Radians, Degrees, and Arc Length Practice (version 88)

2. On the circle below, draw a sketch of a **1395º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{19\pi}{3}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

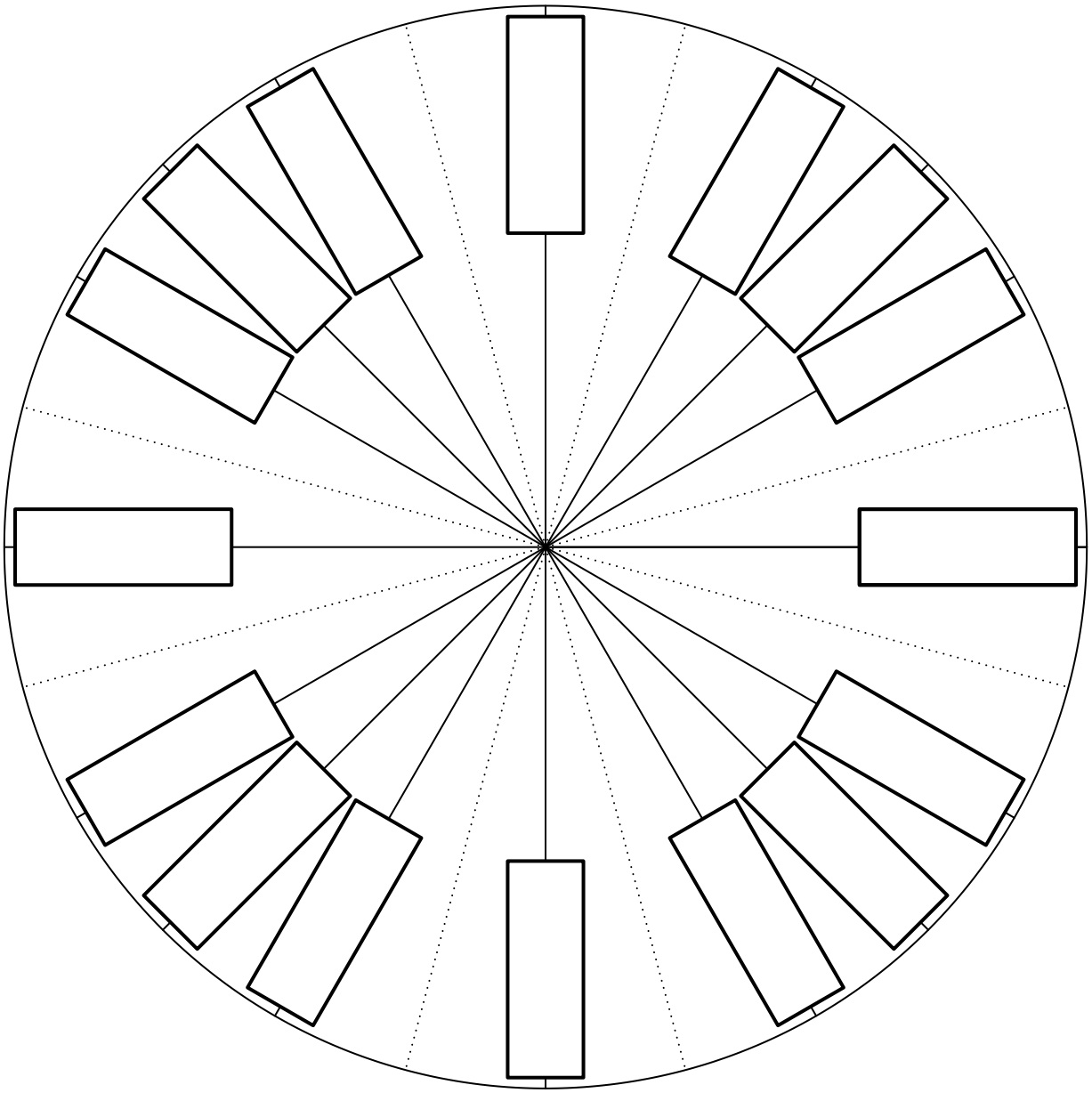


4. A circle is drawn with a radius of r meters. A central angle of 6 radians is drawn, subtending an arc of length 12 meters. Find r.

Name: Date:

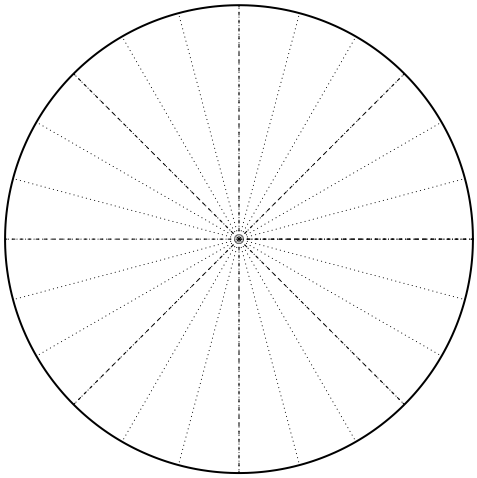
u12 Radians, Degrees, and Arc Length Practice (version 89)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

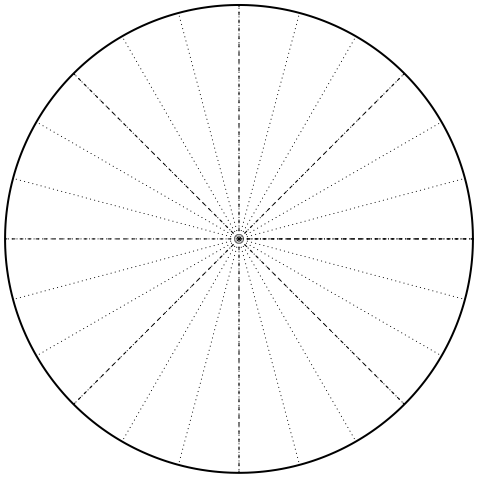


u12 Radians, Degrees, and Arc Length Practice (version 89)

2. On the circle below, draw a sketch of a **510°** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{-41\pi}{6}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

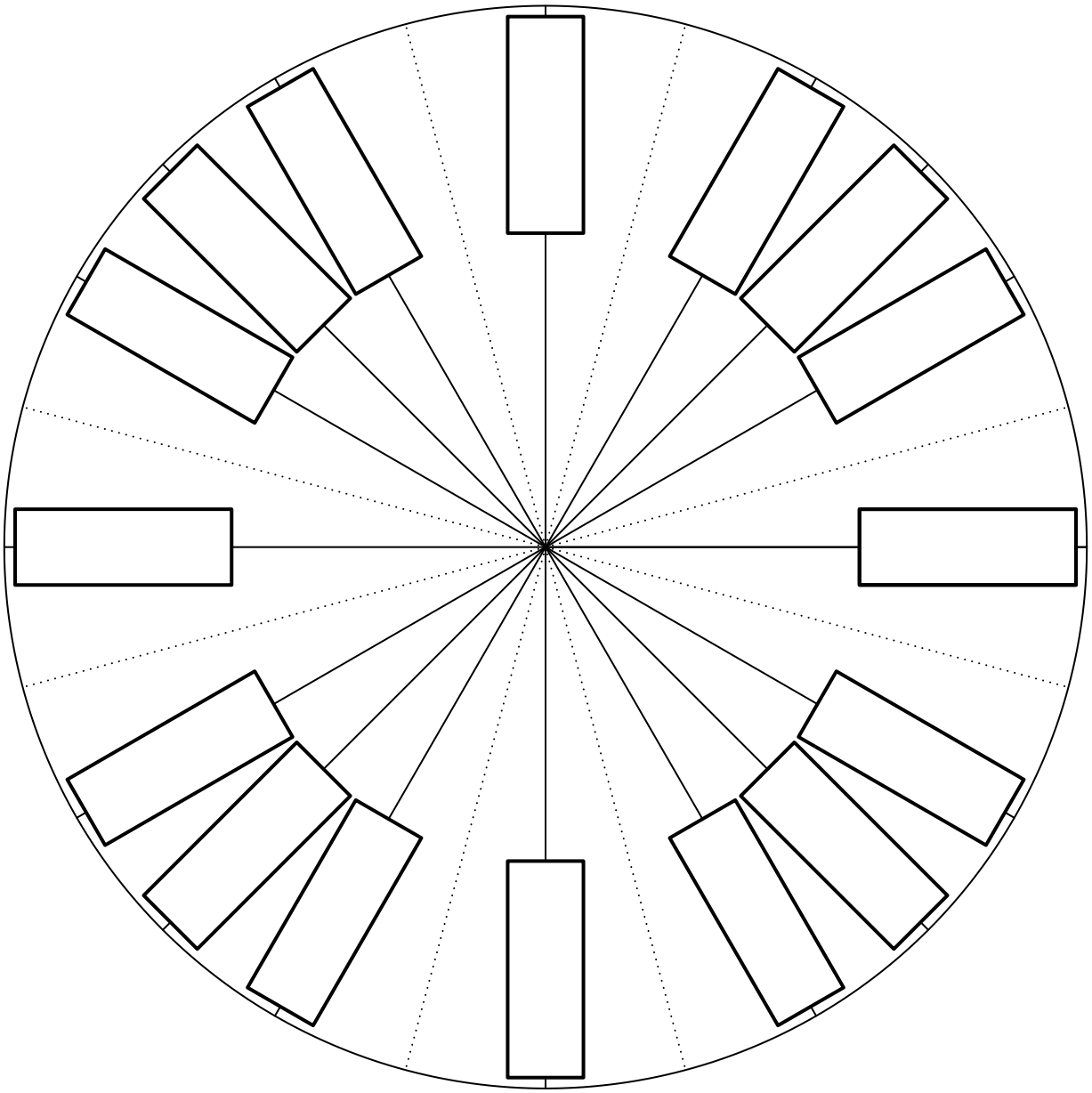


4. A circle is drawn with a central angle of θ radians. The radius is 3 meters and the subtended arc length is 15 meters. Find θ.

Name: Date:

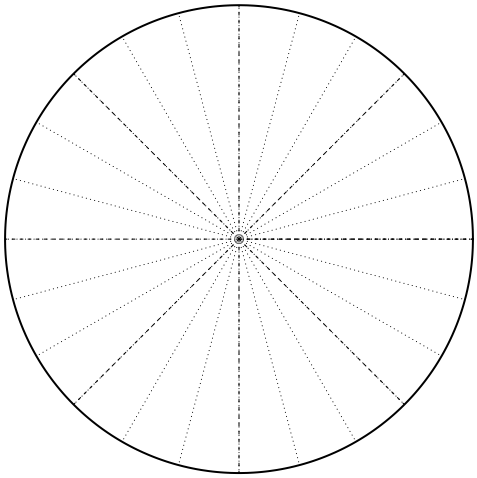
u12 Radians, Degrees, and Arc Length Practice (version 90)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

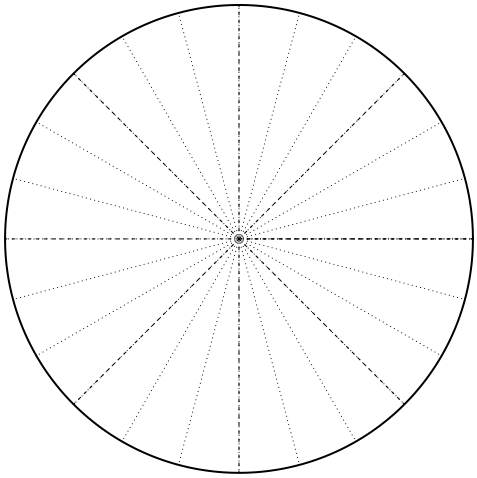


u12 Radians, Degrees, and Arc Length Practice (version 90)

2. On the circle below, draw a sketch of a **-960º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{-19\pi}{6}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

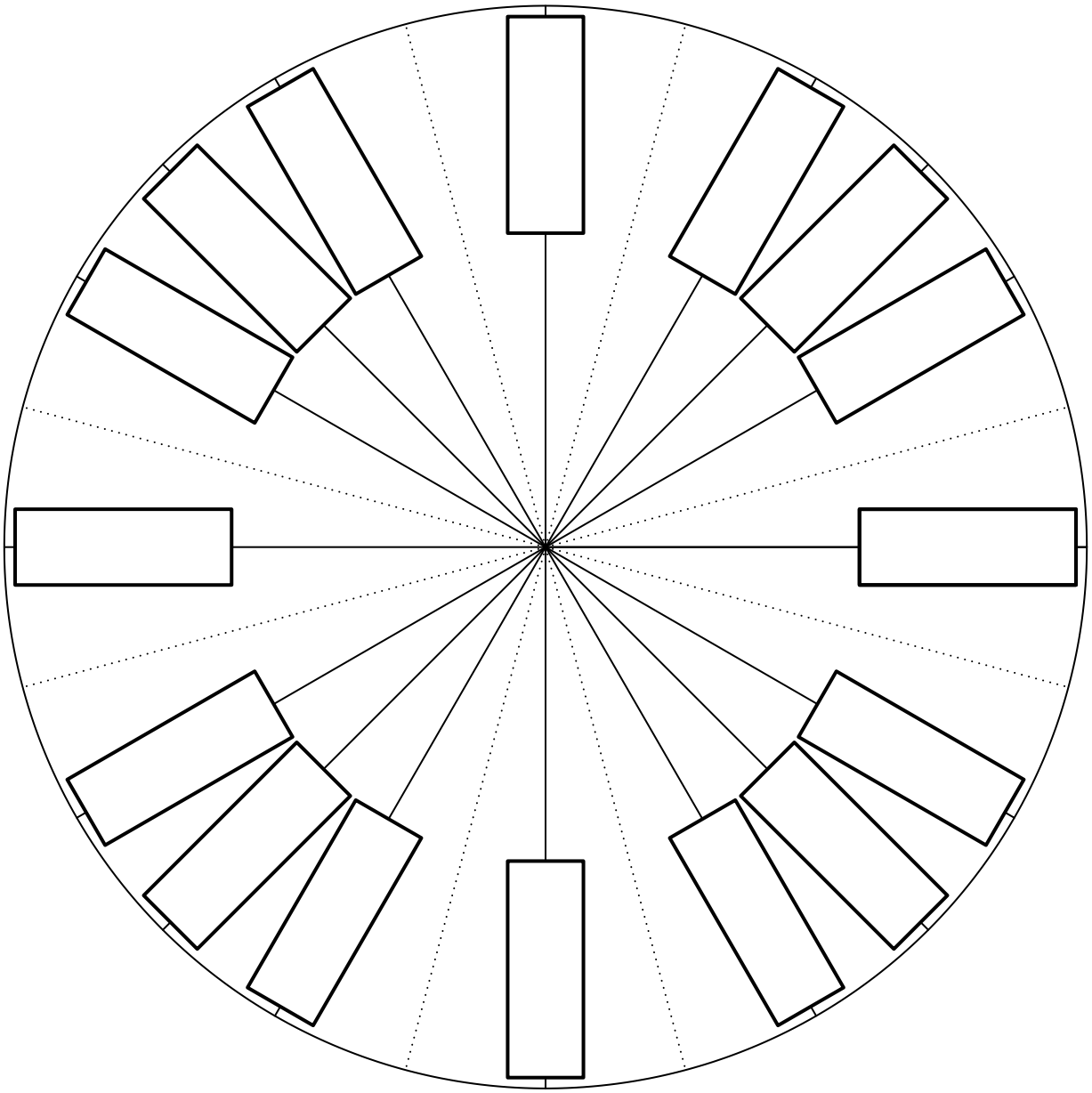


4. A circle is drawn with a central angle of 2 radians. The radius is 3 meters and the subtended arc length is L meters. Find L.

Name: Date:

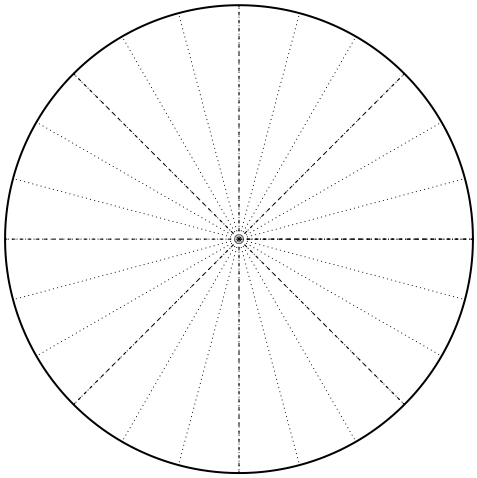
u12 Radians, Degrees, and Arc Length Practice (version 91)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

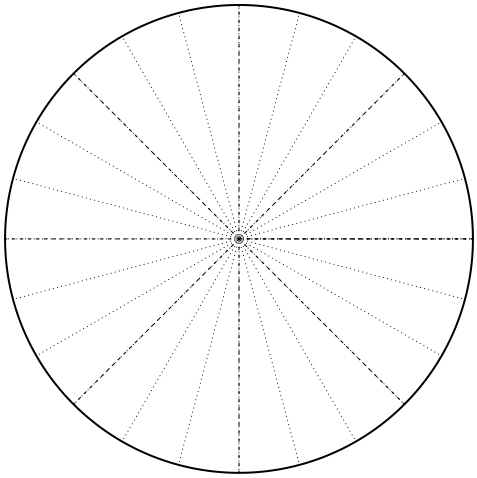


u12 Radians, Degrees, and Arc Length Practice (version 91)

2. On the circle below, draw a sketch of a **420°** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{-15\pi}{2}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

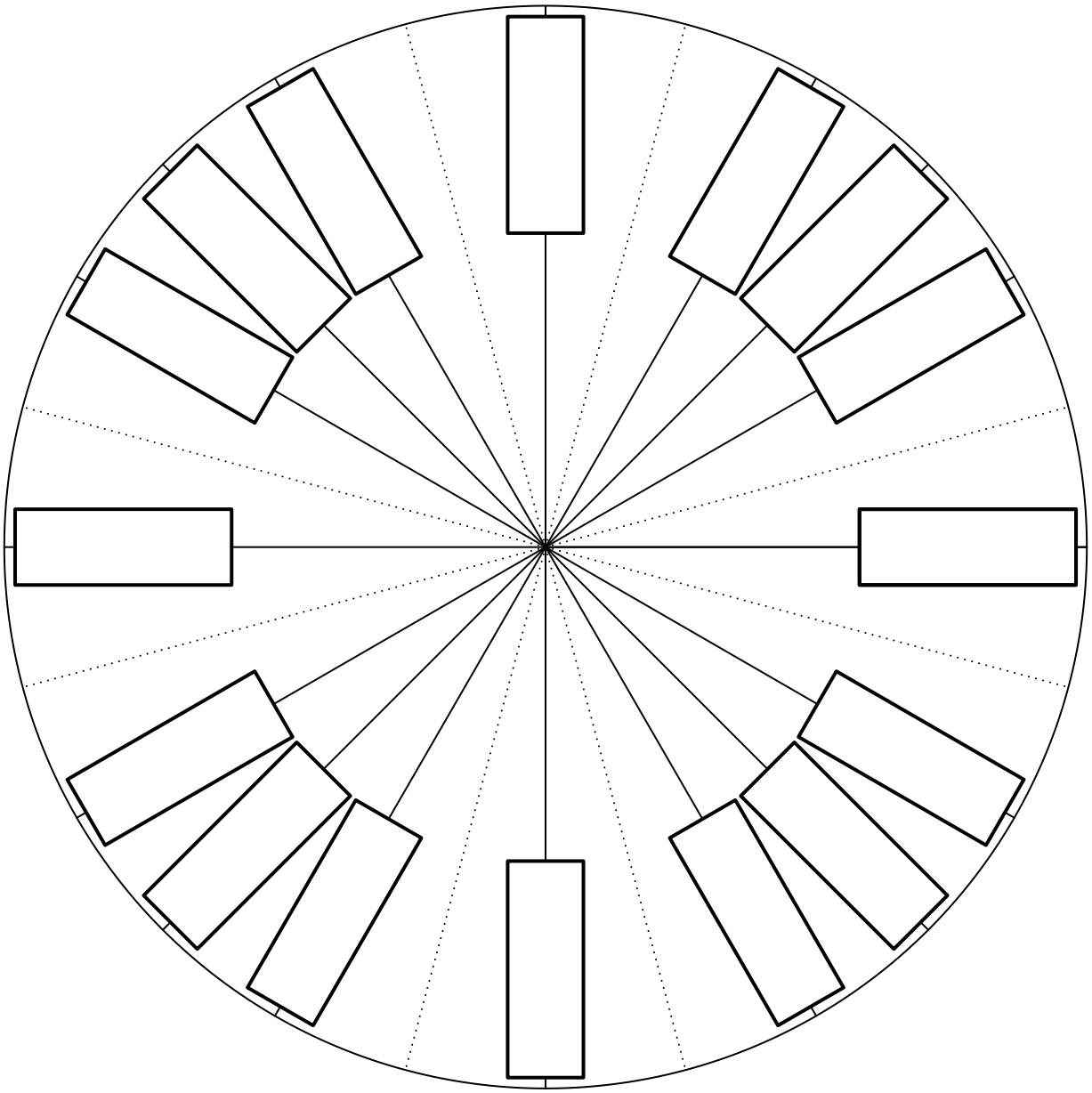


4. A circle, a central angle, and the subtended arc are drawn. The arc length is L meters. The central angle is 6 radians. The radius is 5 meters. Find L.

Name: Date:

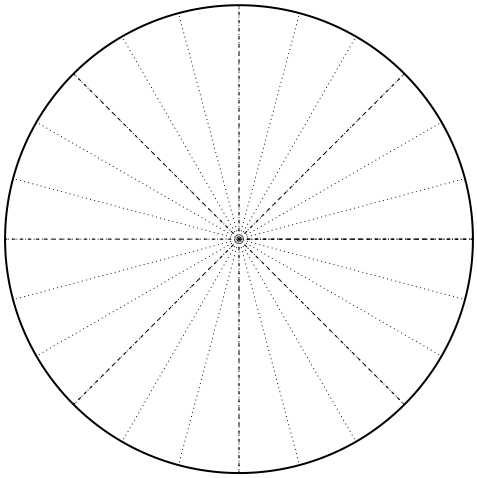
u12 Radians, Degrees, and Arc Length Practice (version 92)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

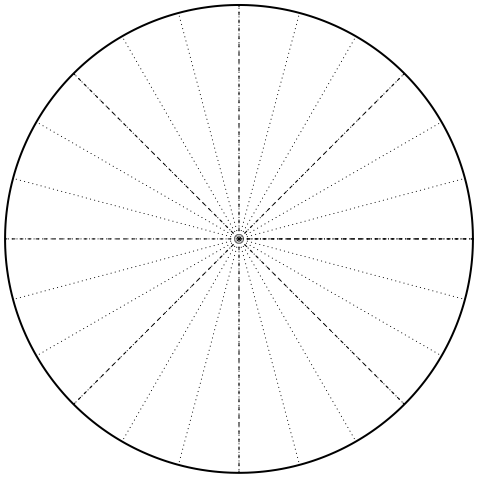


u12 Radians, Degrees, and Arc Length Practice (version 92)

2. On the circle below, draw a sketch of a **-765º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{17\pi}{3}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

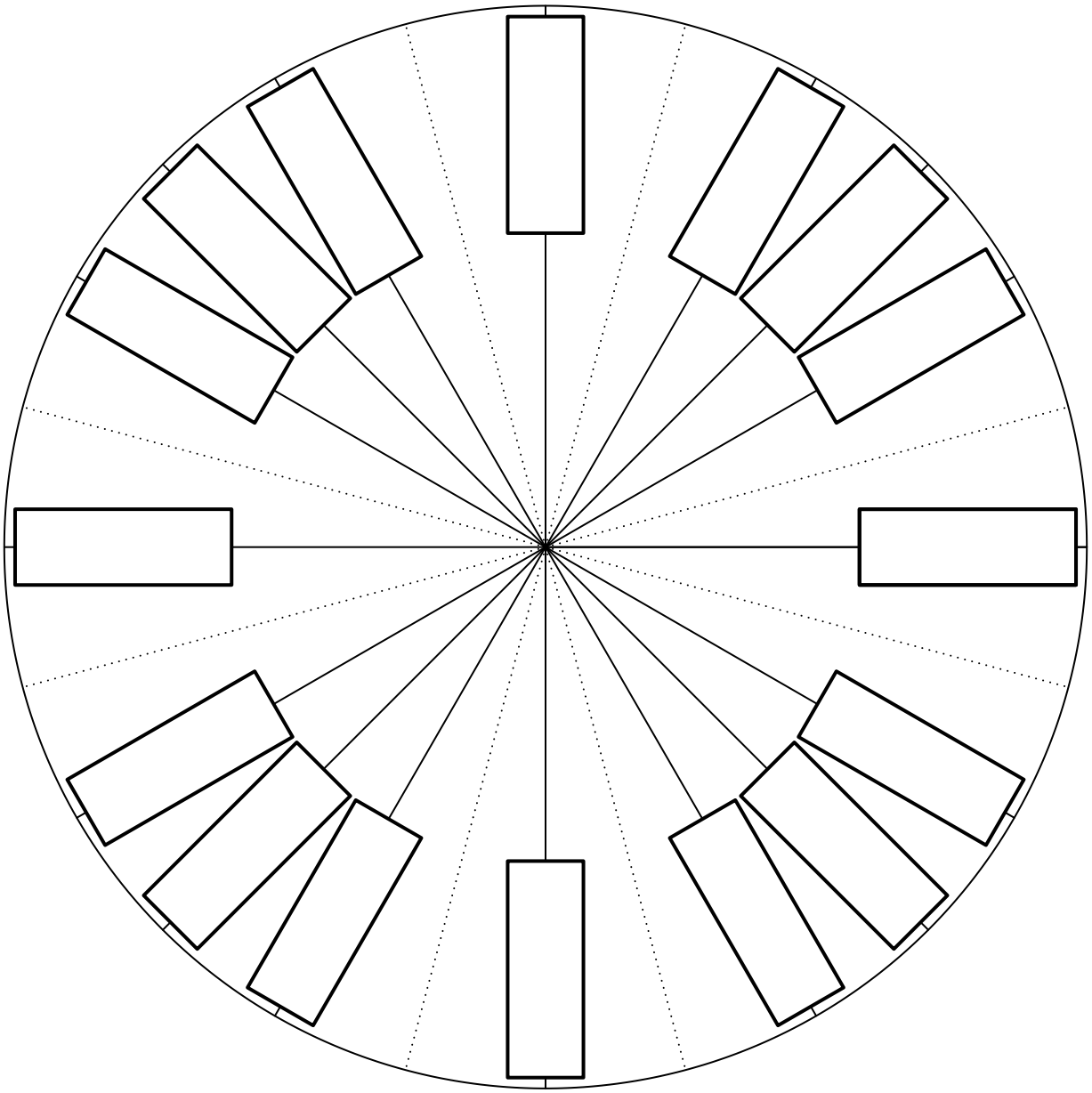


4. A circle is drawn with a radius of 6 meters. A central angle of 4 radians is drawn, subtending an arc of length L meters. Find L.

Name: Date:

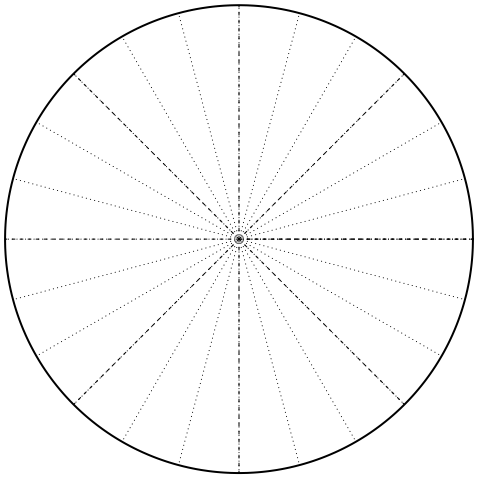
u12 Radians, Degrees, and Arc Length Practice (version 93)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

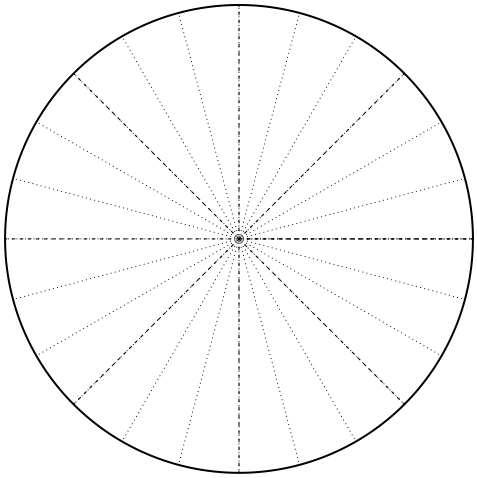


u12 Radians, Degrees, and Arc Length Practice (version 93)

2. On the circle below, draw a sketch of a **675º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{-41\pi}{6}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

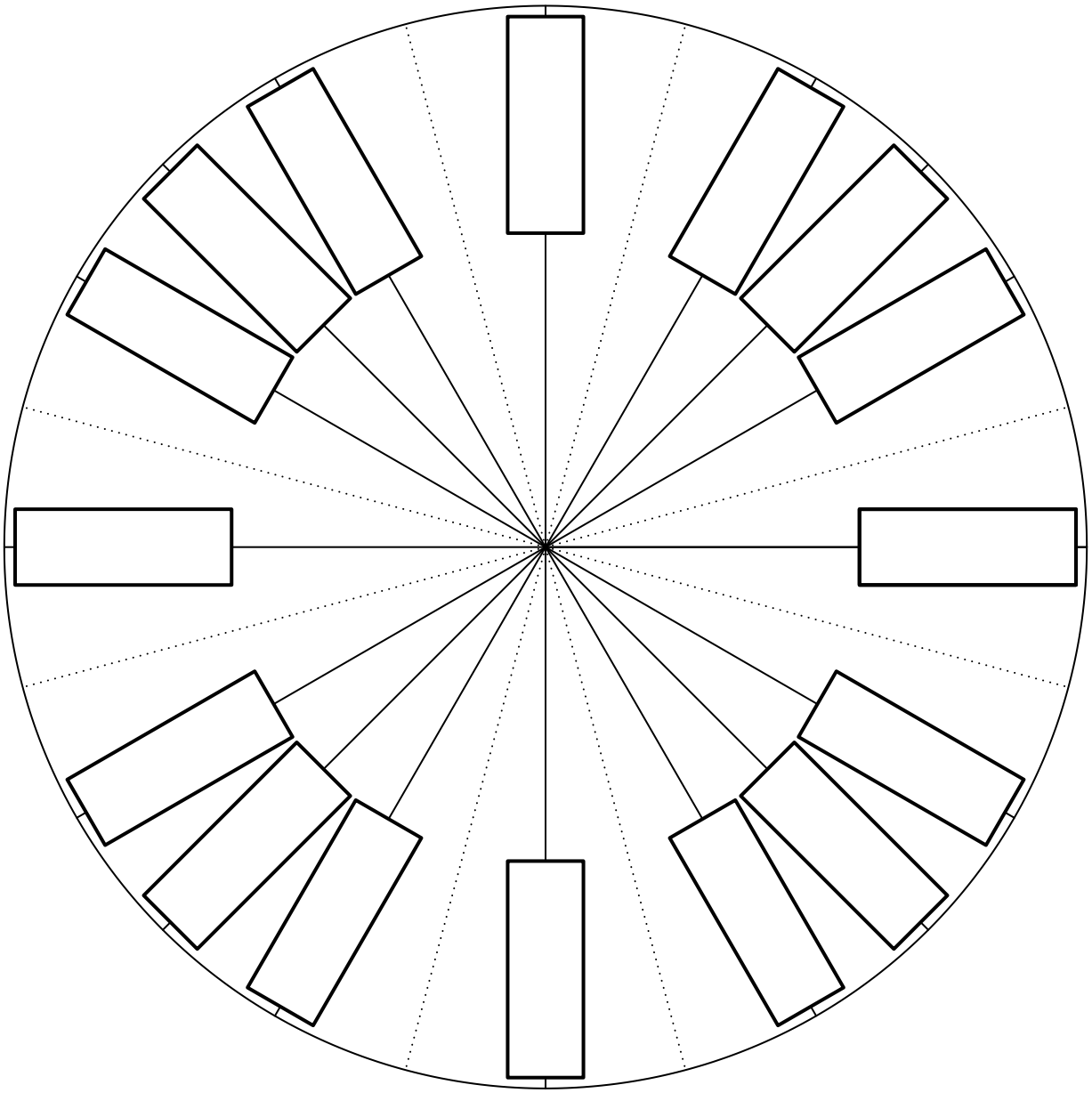


4. A circle is drawn with a radius of r meters. A central angle of 2 radians is drawn, subtending an arc of length 6 meters. Find r.

Name: Date:

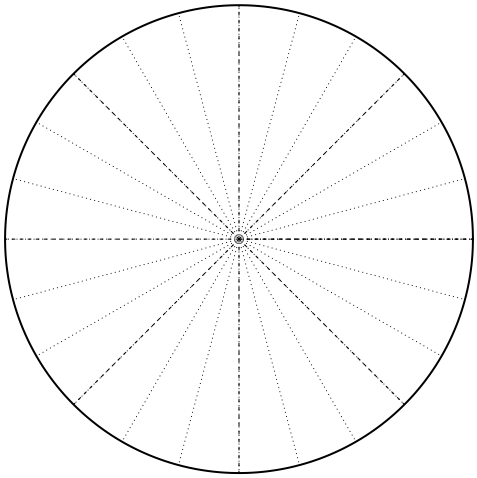
u12 Radians, Degrees, and Arc Length Practice (version 94)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

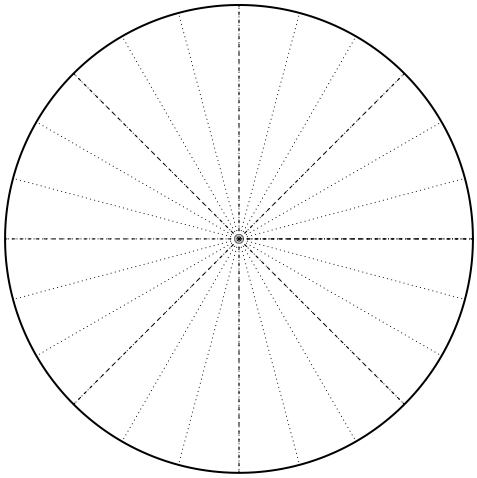


u12 Radians, Degrees, and Arc Length Practice (version 94)

2. On the circle below, draw a sketch of a **1020º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{-35\pi}{6}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

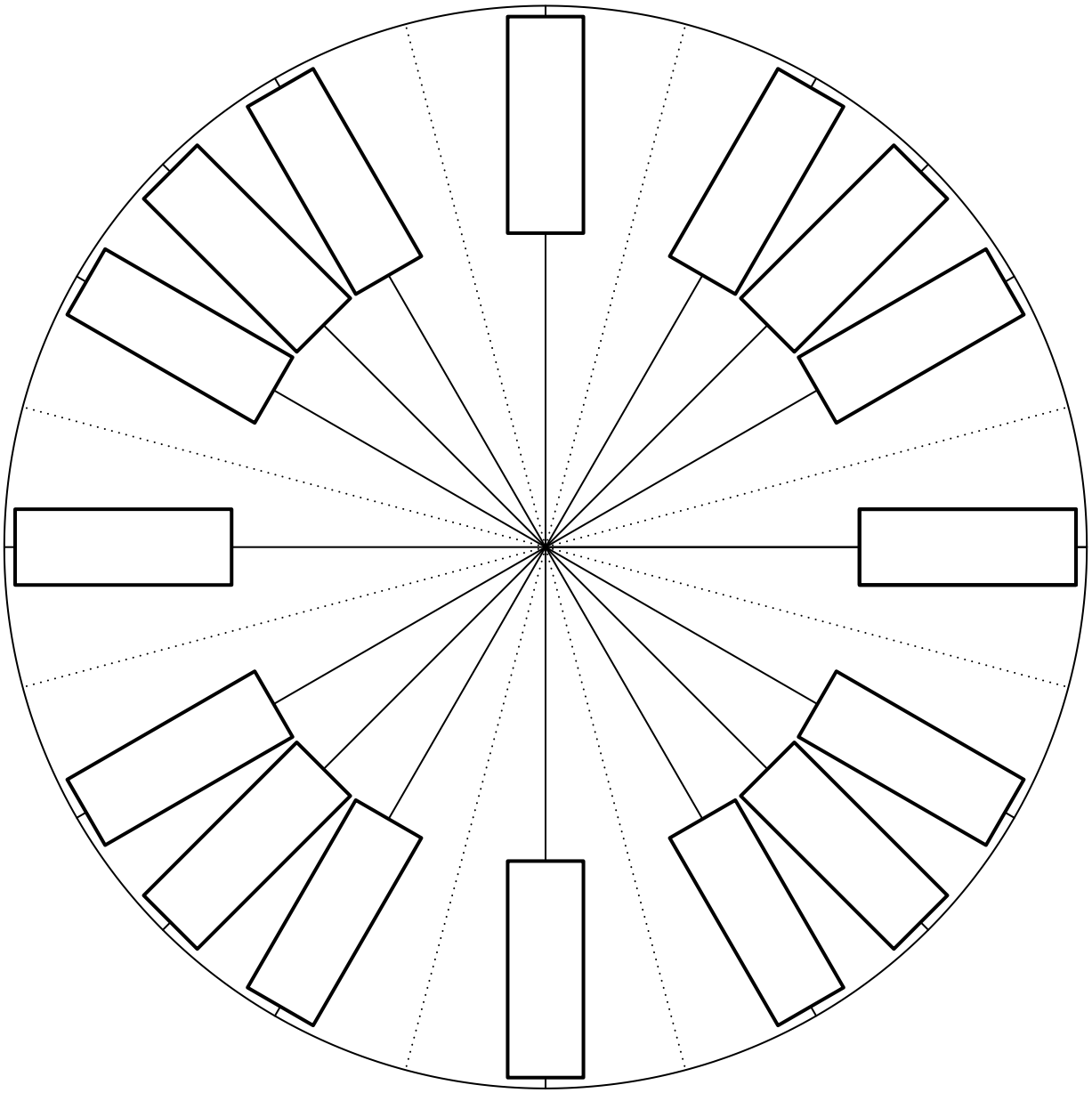


4. A circle, a central angle, and the subtended arc are drawn. The arc length is 20 meters. The central angle is θ radians. The radius is 5 meters. Find θ.

Name: Date:

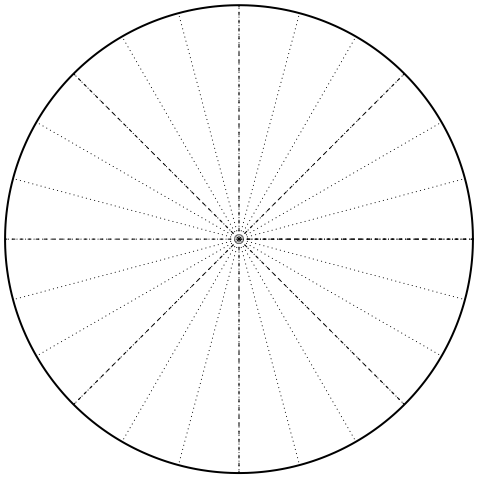
u12 Radians, Degrees, and Arc Length Practice (version 95)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

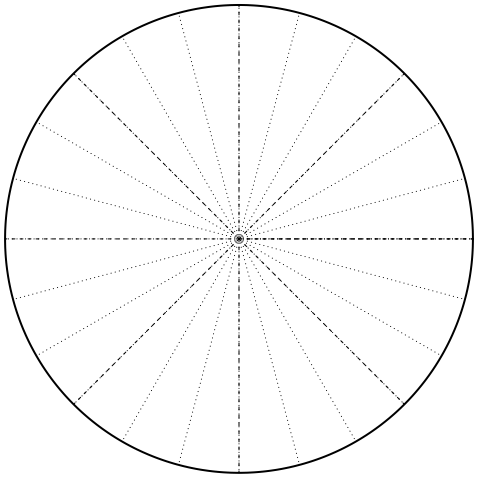


u12 Radians, Degrees, and Arc Length Practice (version 95)

2. On the circle below, draw a sketch of a **1350º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{19\pi}{6}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

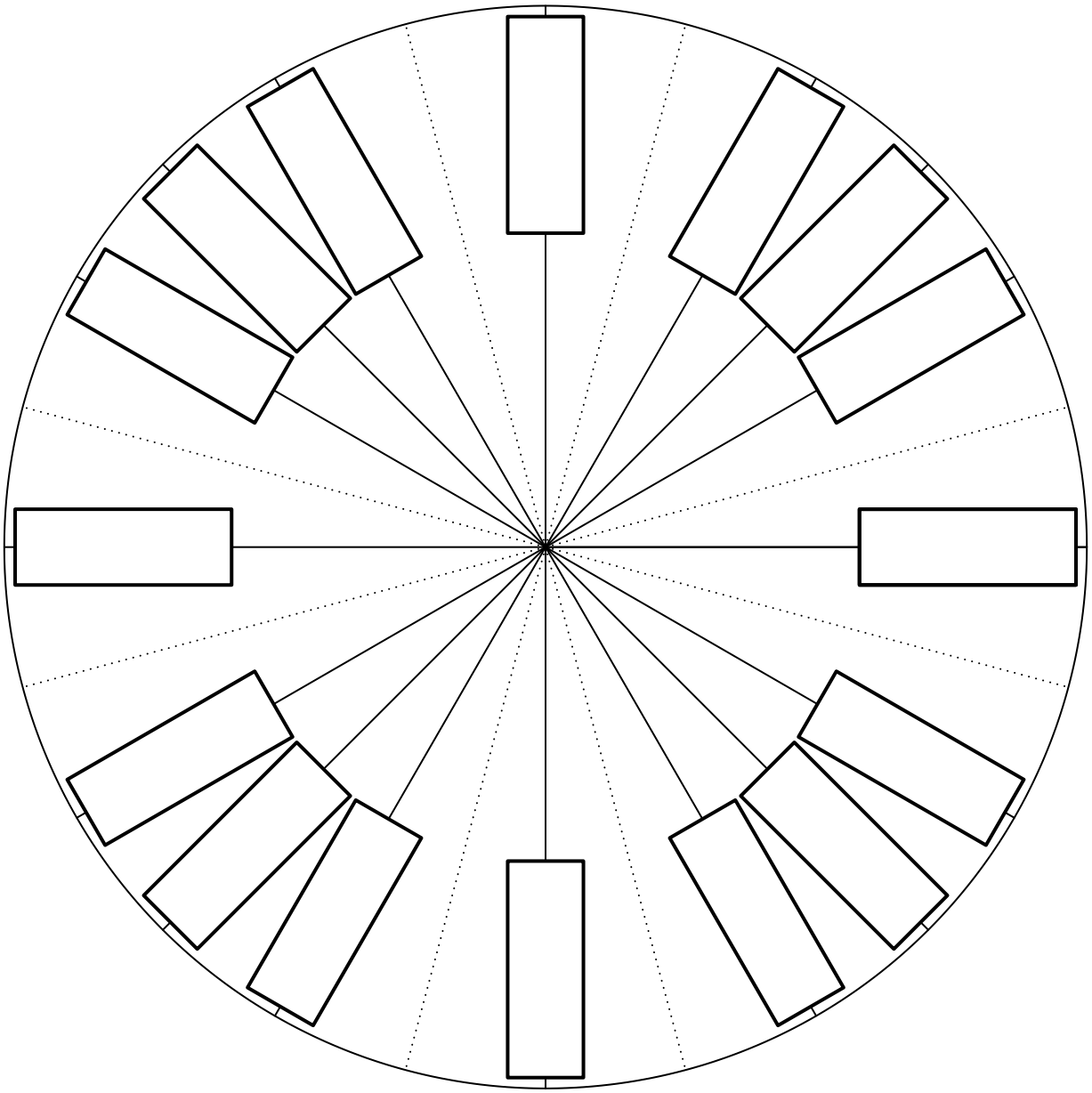


4. A circle is drawn with a central angle of 2 radians. The radius is r meters and the subtended arc length is 8 meters. Find r.

Name: Date:

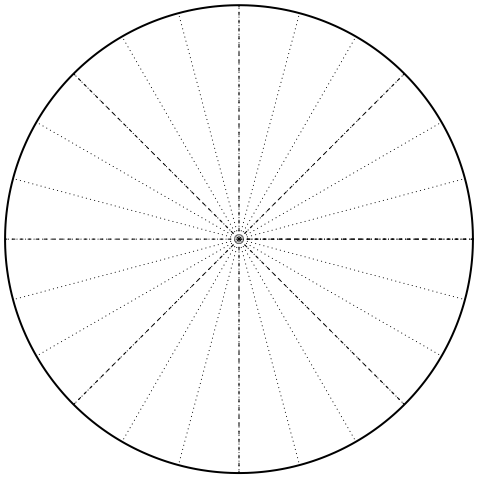
u12 Radians, Degrees, and Arc Length Practice (version 96)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

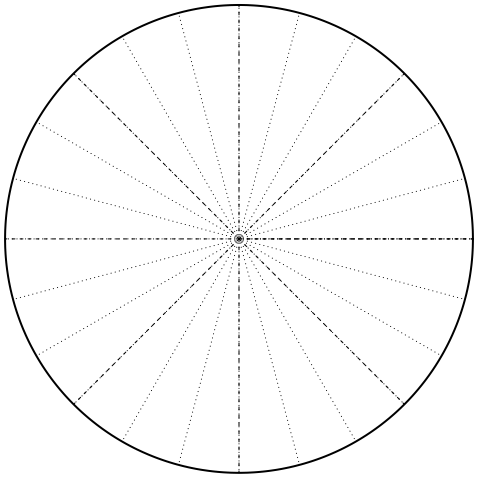


u12 Radians, Degrees, and Arc Length Practice (version 96)

2. On the circle below, draw a sketch of a **1110º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{-31\pi}{4}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

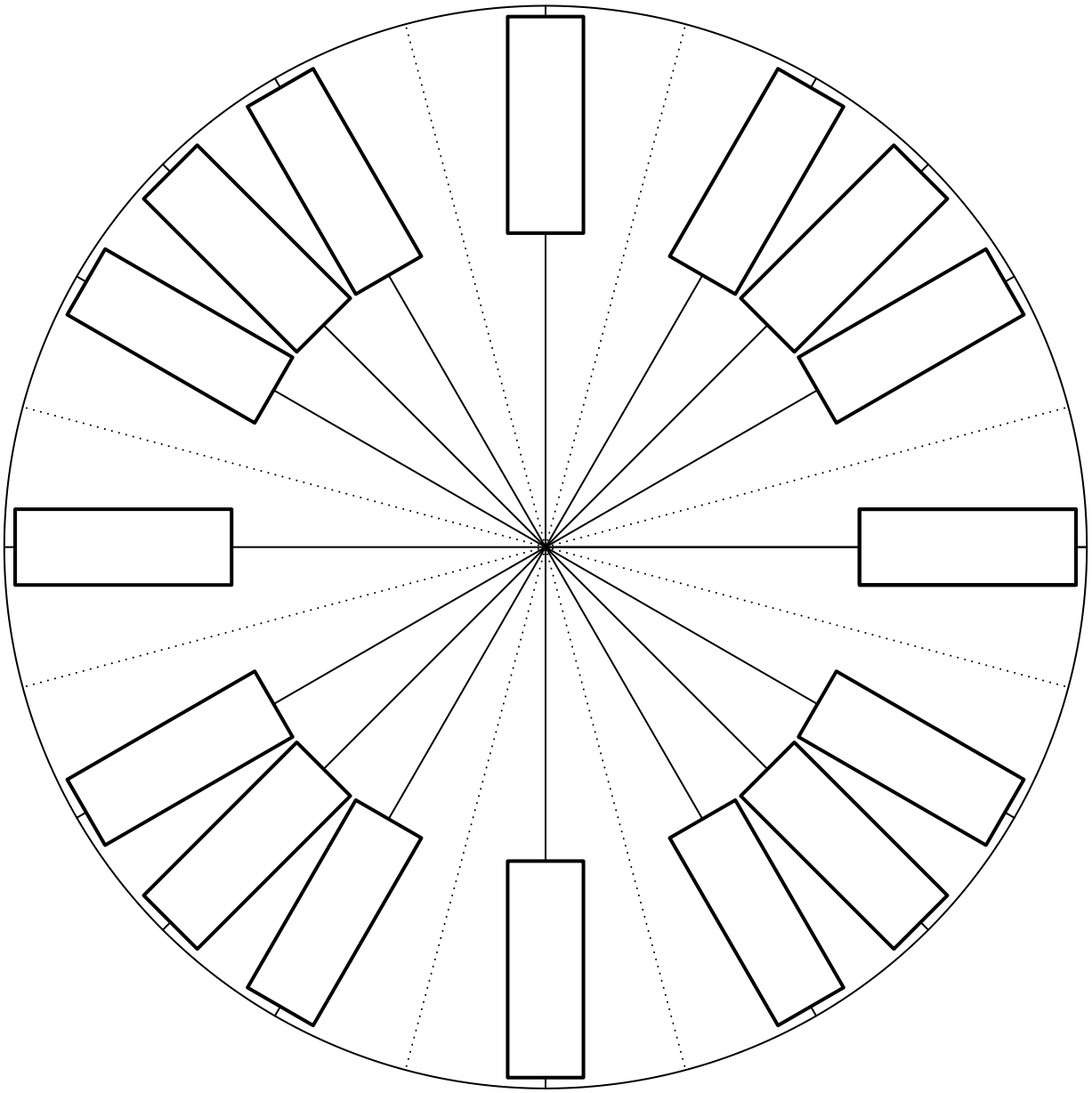


4. A circle is drawn with a radius of 5 meters. A central angle of 2 radians is drawn, subtending an arc of length L meters. Find L.

Name: Date:

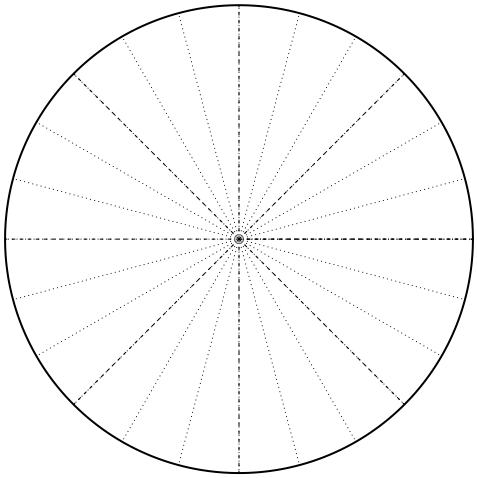
u12 Radians, Degrees, and Arc Length Practice (version 97)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

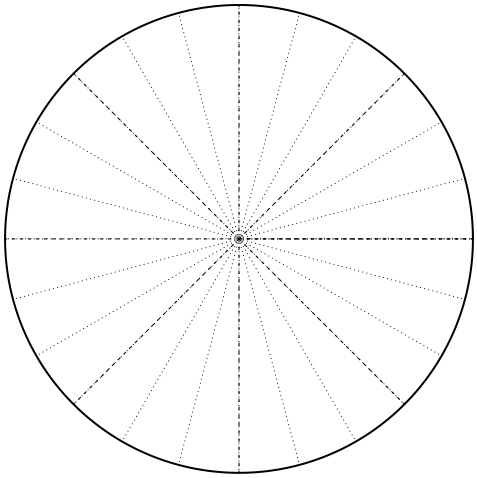


u12 Radians, Degrees, and Arc Length Practice (version 97)

2. On the circle below, draw a sketch of a **-570º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{-11\pi}{4}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

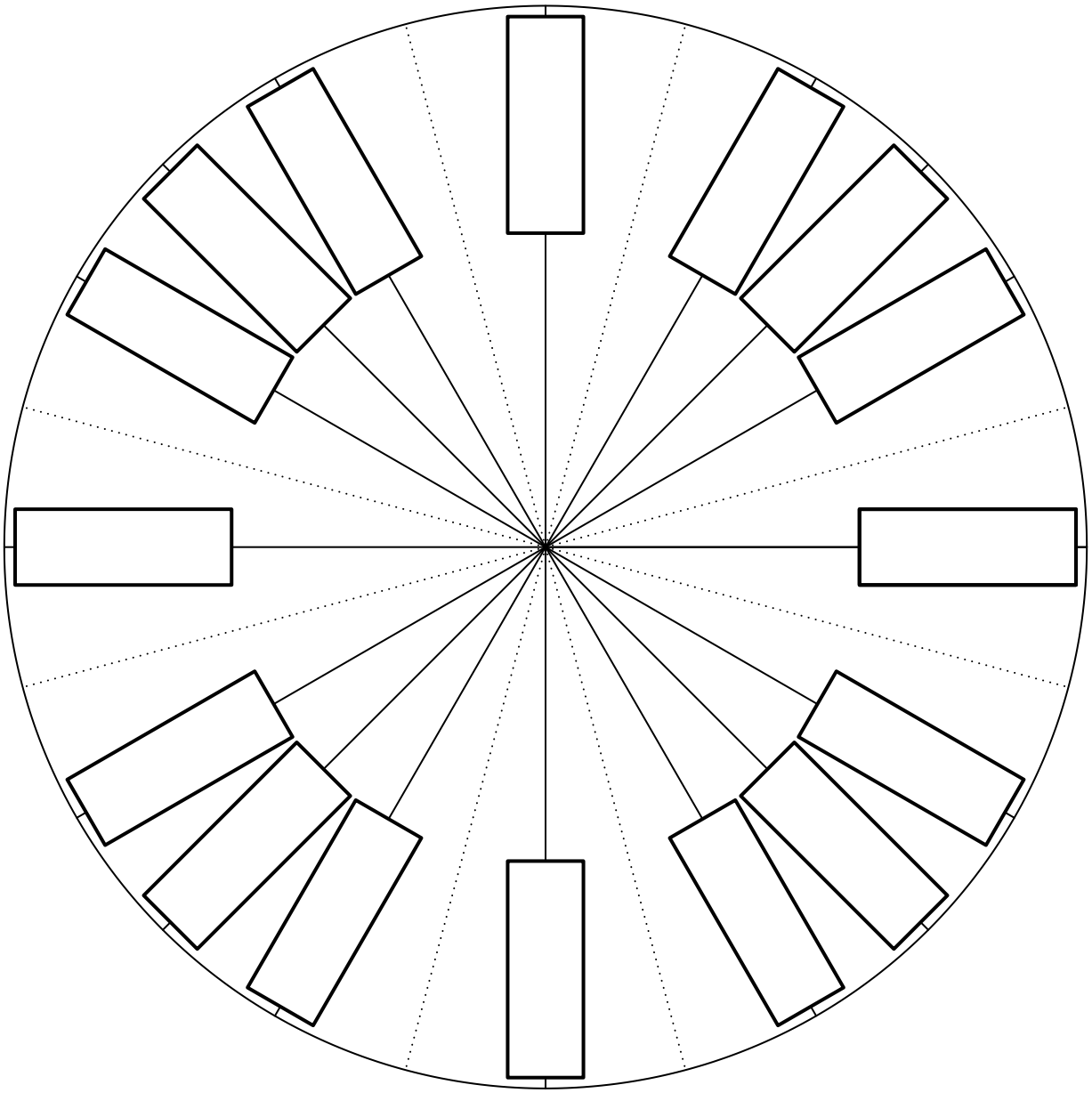


4. A circle is drawn with a radius of r meters. A central angle of 2 radians is drawn, subtending an arc of length 12 meters. Find r.

Name: Date:

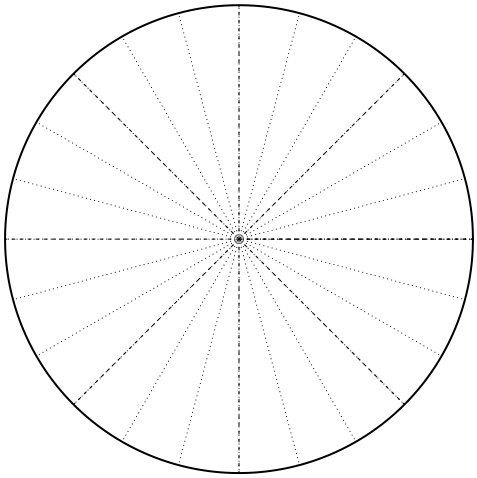
u12 Radians, Degrees, and Arc Length Practice (version 98)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

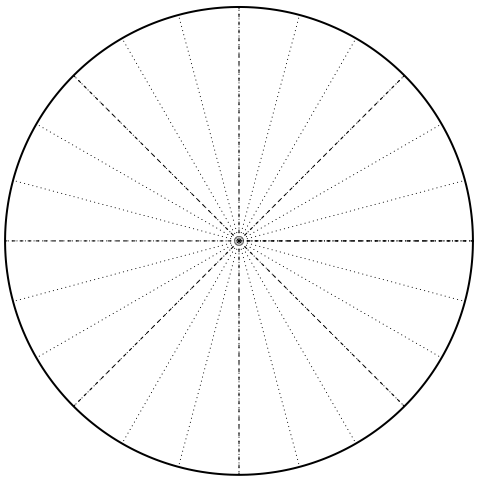


u12 Radians, Degrees, and Arc Length Practice (version 98)

2. On the circle below, draw a sketch of a **765º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{17\pi}{6}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.

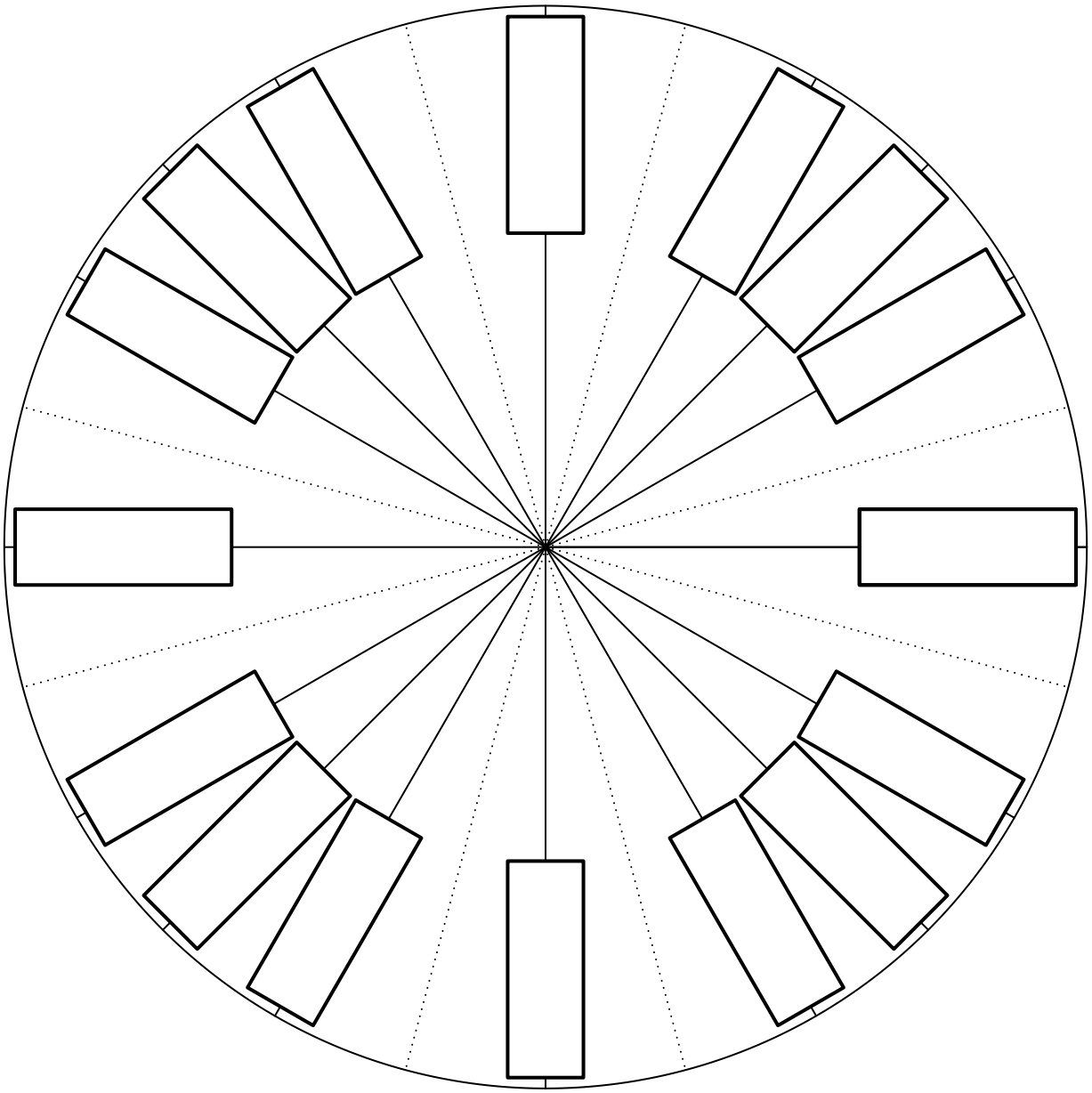


4. A circle is drawn with a radius of r meters. A central angle of 4 radians is drawn, subtending an arc of length 24 meters. Find r.

Name: Date:

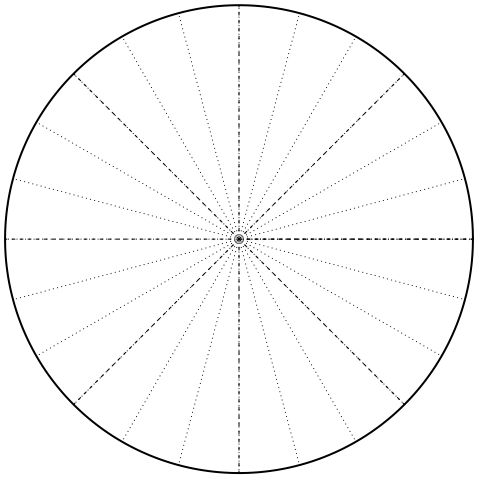
u12 Radians, Degrees, and Arc Length Practice (version 99)

1. Write in the angles, in **degrees and radians**. Please put the angles in their standard locations, and put radians in exact, and simplified, form.

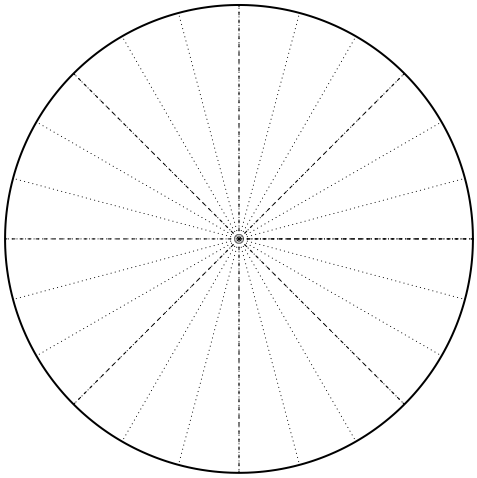


u12 Radians, Degrees, and Arc Length Practice (version 99)

2. On the circle below, draw a sketch of a **660º** angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the angle. For your reference, the first few multiples of 360 are 360, 720, 1080, and 1440.



3. On the circle below, draw a sketch of a $\frac{-14\pi}{3}$ angle in standard position. Include the initial ray, the terminal ray, and the spiral arrow indicating direction and full extent of the rotation.



4. A circle is drawn with a central angle of θ radians. The radius is 3 meters and the subtended arc length is 18 meters. Find θ.